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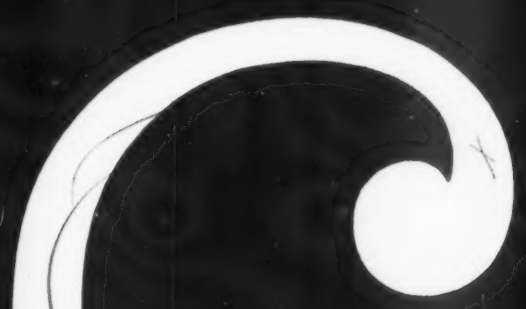
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February 1951

finish

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finish

SUGGESTION BOX

Speedy method for finishing small steel parts

how automatically operated spinning cabinet increased efficiency from 3 to 4 times for small parts manufacturer

EFFICIENCY in the painting or waxing of small steel parts is increased three to four times in an automatically-operated spinning cabinet at Tinnerman Products, Inc., of Cleveland, manufacturers of the "speed nut" type of fasteners.

The cabinet, designed and installed by Tinnerman engineers, also eliminates the necessity of workmen

lifting and lowering baskets of fasteners weighing approximately 90 pounds from floor level to and from a height of approximately four feet.

The basket to be filled with unpainted fasteners is placed, at floor level, on a lift operated on a track in the front of the cabinet. Approximately 50 pounds of the fasteners are dumped from a can into a basket.



Operator is shown unloading "speed nuts" from basket on pivoted rack after painting in spinning cabinet.

The operator presses a button on the front of the cabinet, and the lift is raised by an electrically-operated hoist four feet—to the level of the front opening of the cabinet.

The operator then slides the basket into the cabinet and onto a metal disc. A drum, operated by two air cylinders beneath it, and filled to a depth of 7 inches with paint or liquid wax, is then raised to permit the liquid to cover the metal parts.

After the fasteners have been submerged, the drum is lowered until the bottom of the basket is above the surface of the paint. The basket is spun on the disc at 450 rpm for approximately 45 seconds. At the end of this interval a "dog" contacts the basket and stops its motion.

The drum is lowered further to clear the bottom of the basket. Another basket is slid into the cabinet, pushing the first one out onto a conveyor track which has been raised by a series of pulleys and a compensating weight, to the level of the opening on the side of the cabinet corresponding to the opening on the front.

The basket of finished parts then rides down the conveyor into a pivoted rack, where the parts are placed in a tray ready for baking.

Any requests for additional information on this finishing operation should be sent direct to finish.



COMPLETE *Finishing* SYSTEMS

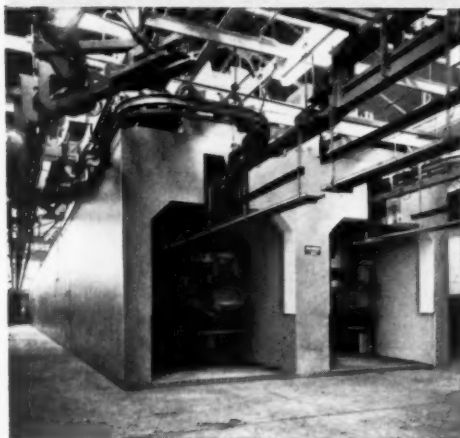
for ENAMEL • LACQUER • PAINT



Mahon Cleaning and Rust Proofing Equipment in Two Automobile Body Finishing Production Lines.



Interior of the New Mahon Down-draft Hydro-Filter Spray Booth with the New "Hydraire" Flood Sheets.



Typical Mahon Direct Gas-Fired Drying and Baking Ovens in Two Automobile Body Finishing Lines.



Mahon Down-draft Hydro-Filter Spray Booths in Two Automobile Body Painting Production Lines—Part of a Complete Mahon Finishing System.

... the EXPERIENCE that goes into the PLANNING and ENGINEERING of MAHON EQUIPMENT is the item of GREATEST VALUE to YOU!

Modern Equipment Produces Finer Finish ... Makes for Better Working Conditions!

The equipment illustrated here is part of a complete automotive finishing system recently installed by the Mahon Company in one of the large automobile plants . . . it embodies many new features which make for reduced maintenance, better working conditions, and finer finishes at minimum cost. In the automotive field, as in the household appliance field, and any other industry where finishing constitutes a major production operation, you will find more complete Mahon finishing systems than all other types combined. Manufacturers, today, turn their finishing problems over to Mahon with complete confidence . . . they do so because they know that the Mahon organization has pioneered development in this highly specialized field for over thirty years . . . they know, also, that broad experience and constant research and experimentation have endowed Mahon engineers with a wealth of technical knowledge and practical know-how not available elsewhere. See Mahon's Insert in Sweet's Mechanical Industries File for complete information, or write for Catalog A-650.

THE R. C. MAHON COMPANY
HOME OFFICE and PLANT, Detroit 34, Mich. • WESTERN SALES DIVISION, Chicago 4, Ill.

Engineers and Manufacturers of Complete Finishing Systems—including Metal Cleaning and Pickling Equipment, Metal Cleaning and Rust Proofing Equipment, Dry-Off Ovens, Hydro-Filter Spray Booths, Filtered Air Supply Systems, and Drying and Baking Ovens; Core Ovens, Dust Collecting Systems, Fog-Filters, and many other Units of Special Equipment.

MAHON

News from Washington

by Orville Johnson • (AS OF JANUARY 14, 1951)

INCREASING government regulation affecting every phase of American business is the obvious pattern of events for 1951—Controls Are Closing In. All industry will feel the impact of the rules and orders which are destined to grow larger, longer, and more complex. Defense production requirements must be met. Fitting these military needs into an economy already straining to fulfill civilian wants is the aim of these controls.

These controls will assume many forms, and alert business leaders will be ready at all times to "ride with the blow" and to adjust to the changing conditions.

War contracts are increasing

Defense production is gaining momentum and military expenditures are now running more than $1\frac{1}{2}$ billion a month. Spending will reach 2 billion by June and 3 billion monthly by the year's end.

In the speeded up procurement program, a larger proportion of military purchasing is being handled on a negotiated contract basis. Until the President's emergency proclamation, the advertised bid procedure had been used almost entirely to fill defense requirements.

Under negotiated contract procedure, qualified suppliers are asked to submit quotations accompanied by estimated production costs. The lower bidders are invited to individual conferences where purchasing officers endeavor to secure the best possible contract.

Purchasing authorities emphasize that negotiations will be handled at the decentralized purchasing office throughout the country. They say there is still no more reason for industrialists seeking government business to come to Washington than there was under the advertised bids plan. Many items will still be purchased by advertising for bids, particularly standard consumer goods.

Materials limitations

Makers of consumer hard goods will feel the pinch of the NPA materials orders more and more. The initial across-the-board percentage cutbacks on critical materials are now viewed as just a start. Since military consumption of materials is admittedly still very low, the object

of these early orders has been to stockpile copper, cobalt, aluminum, cadmium and other metals. *End use limitation orders*—outright bans on specific uses of critical materials—have been recently applied in Phase II of materials control.

Copper—Most significant thus far is the order, effective March 1, banning the use of copper in some 300 designated finished products. The effect of this order is added to previous action on copper. (Manufacturers were allowed, for January and February, only 85% of their average consumption during the first half of 1950.)

This latest order specifically prohibits copper in non-essential items of the bird cage and ash tray variety. Copper is also forbidden for important products such as refrigerators and stoves "*except where copper . . . is used for functional parts . . . and satisfactory substitutes are not available.*"

Considerable confusion has resulted from the wording of certain sections of the copper order, particularly with reference to parts used on stoves. NPA officials have indicated a clarification is forthcoming.

Cobalt—The supply of highly strategic cobalt will be under virtually complete government allocation after February 1. The severe NPA order, M-10 Amended, indicates that defense and essential civilian production will require almost the total available supply of cobalt.

To specify their needs, users are required to complete and submit NPA Forms 15 and 16 prior to the fifteenth of each month. These forms, to be sent to NPA's Iron and Steel Division, serve as inventory reports and applications for allotment. Only after an application is approved by NPA will cobalt suppliers be allowed to make shipment on orders larger than 25 pounds per month.

The cobalt curtailment is expected to have very telling effects upon civilian production. High speed cutting tools, jet turbines, magnetic and hardening alloys and ground coat porcelain enamels all require this strategic metal. Porcelain enamel frit manufacturers are searching feverishly for adequate substitutes for cobalt. Some frit companies indicate they know of no other material that can

be used satisfactorily; others say they believe they can develop satisfactory adherence without cobalt. Which group is right can well be a determining factor as to the output of porcelain enameled major appliances during coming months.

Cadmium—NPA Order M-19 limits the use of this metal to defense orders and essential civilian needs, and 55 specific products and parts are listed which may use cadmium. Cadmium is widely used in corrosion-resistant alloys, and there is no known substitute or alternative material, according to NPA.

The approved list is aimed to eliminate all ornamental or "extra" uses of cadmium, but it also stops the use of cadmium in the manufacture of commercial electric signs and lighting fixtures.

Aluminum—A limitation order, similar to the one covering copper, is expected shortly, banning the use of aluminum in a list of non-essential products. This will be added to the percentage cut previously imposed.

Steel—The controls on steel are not severe as yet. Thus far, steel controls consist primarily of setting aside the required steel for defense production, railroad cars, defense plants, and special projects. Thus, it appears that civilian users may continue to scramble for steel as they have been doing for some time.

Nickel, Tin, and Zinc—These metals have been curtailed with only percentage cutbacks thus far. Further controls are likely at a later date.

Constant adjustment to changing conditions will be necessary

These orders affecting the availability of strategic materials indicate a steady movement toward a World War II-type of *Controlled Materials Plan*. As the pincers of controls close in, many adjustments will be necessary. There will be business casualties, especially among the smaller companies. New and previously untried methods of doing things, changes to meet imposed shortages, and wide searching for substitute materials will characterize the coming months.

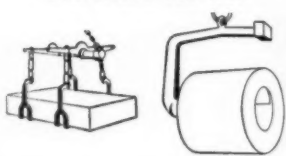
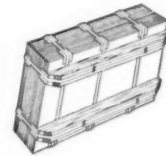
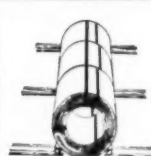
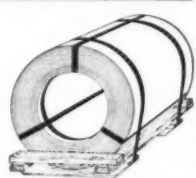
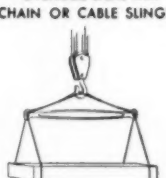
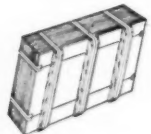
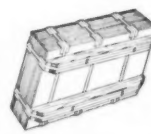
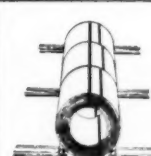
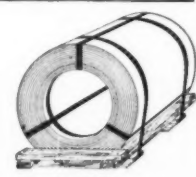

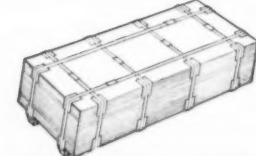
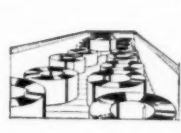

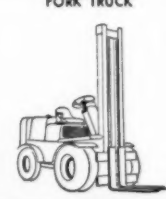
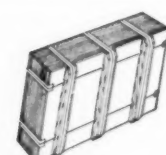
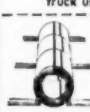



By thorough planning NOW for any eventuality, by watching constantly for changes, and by responding to these changes as quickly as possible, the wise and alert company will attempt to adjust to the coming conditions.

See Washington Briefs . . . Page 71 →

INLAND DATA for STEEL USERS INLAND STEEL CO. 38 S. Dearborn Street, Chicago 3, Illinois

Packaging your Steel sheets and strip

One way the steel user may be able to reduce the cost of steel delivered to his fabricating equipment, is by specifying the correct type of package the mill should provide. In the final analysis, his handling equipment, storage facilities, method of transportation from mill to plant and end-use of the steel will all have a bearing on the type and weight of package he needs. The following chart illustrates the most generally used types of packages for steel sheets and strip. We are always glad to recommend to the user, the most suitable type of package for the steels we ship.

Type of handling equipment in steel user's plant	The most generally used types of steel mill packages	
	for cut lengths	for coils
Overhead crane with SHEET LIFTER or COIL HOOK 	 sheets on lengthwise skids	 cylinder method of loading coils  coil on skid, core horizontal
Overhead crane with CHAIN OR CABLE SLINGS 	 sheets on crosswise skids  sheets on lengthwise skids	 cylinder method of loading coils  coil on skid, core horizontal
Overhead crane with ELECTRO-MAGNET 	 any type package as long as material is securely banded or tied	 flat method of loading coils  coil on platform, core vertical
FORK TRUCK 	 sheets on crosswise skids	<div>Ram truck or Fork truck used as ram  cylinder method of loading  coil on skid, core horizontal  coil on platform, core vertical</div> <div>Fork truck  coil on platform, core vertical</div>

Production of porcelain enameled cast iron plumbing fixtures

a non-technical description of all principal production operations
in the plant of Crane's Chattanooga Division

by *Walter Rudolph*



Crane Company's Chattanooga Division is well known for the production of cast iron radiation, cast iron low pressure heating boilers, and porcelain enameled cast iron plumbing fixtures. At the Chattanooga plant, this production is carried on from the very beginning—the gathering of raw materials that are melted to make the basic grey cast iron—to the packaging of the beautiful porcelain enameled components for bathrooms and kitchens.

For the record, we might briefly review the history of Crane's Chattanooga plant. It was first known as the Crane Enamelware Company, organized and chartered under Tennessee laws in early 1920. Production operations got under way in 1922, while in the meantime the Cahill Iron Works, a manufacturer of enameled ware in Chattanooga, was acquired to supplement the Alton Park plant.

During ensuing years, the Chattanooga Division steadily expanded. Equipment for the manufacture of cast iron, low pressure heating boilers and cast iron radiation was transferred from two subsidiary Crane plants to Chattanooga during the war, vacating the two plants for use in the national defense program. Of course the Chattanooga Division also went into war production, primarily of steel castings and other defense materials.

Following World War II, many plant changes were made for the various lines produced at Chattanooga.

and a vast expansion and modernization program was undertaken in the manufacture of sanitary enameled ware, a large portion of which is now in operation. At Chattanooga, sanitary cast iron enameled ware is known as a "styled product," and management proudly points to the comparison of the modern built-in type apron bathtub with the original leg type. Also, other comparisons are equally worthy of mention (take the beautiful, convenient modern cabinet sink, as against the original flat or roll-rim type), through improvement in design, quality of material and workmanship, throughout the complete line of sanitary enameled ware.

We certainly should note, too, that in keeping abreast for an improved product, modernization of plant facilities, ventilation, washrooms and methods improvements have not been

slighted. Physical effort and disageable labor has been reduced to a bare minimum, through modern materials handling equipment and methods, molding by use of sandslingers and molding machines, automatic cleaning processes, and the installation of air and electric hoists, tram-rails, cranes and conveyors.

Employees have benefited not only in these changes, but also through advancement in various jobs, skills and earning capacities. Some 1900 persons are on the payroll currently.

Appreciation of workers' efforts is shown through incentive wage plans in effect for the major manufacturing processes.

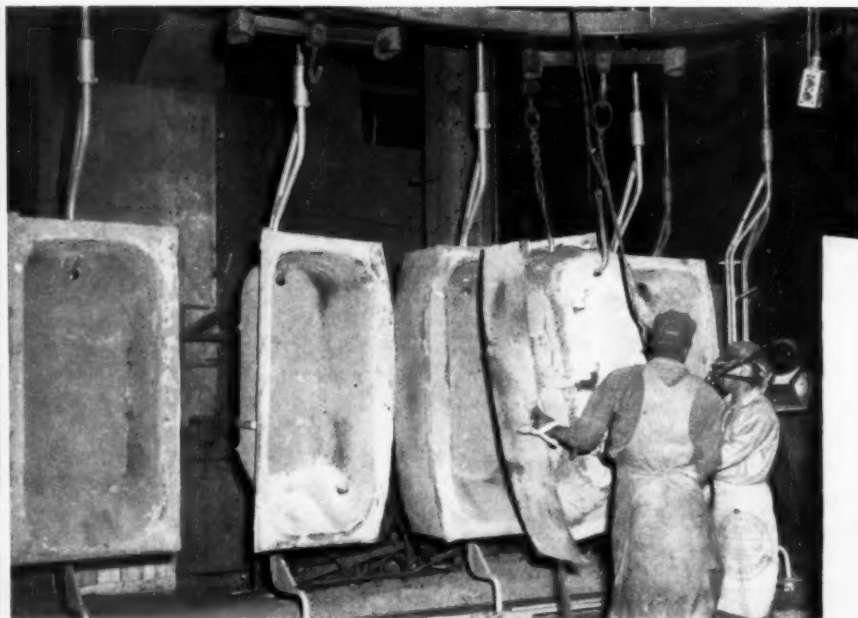
Producing grey iron for plumbing fixtures

We believe it is important to know something of the basic grey iron,





Left: Showing molten iron being discharged into a receiving ladle, and then into a pouring ladle.



onto which porcelain enamel is fired, in Crane's production of sanitary enameled ware. Several hundred tons of pig iron are required for a day's production, in addition to large quantities of selected scrap, coke and other basic ingredients. Raw materials are assembled into a "charge" or batch to be melted and used in pouring molds. Quality control is carefully exercised, through weighing and laboratory tests.

Both northern and southern iron ore go into the making of pig iron used at the plant. An important consideration is the more or less open grain, or pores, required in the finished casting, for better adherence of the porcelain enamel. Phosphorus is vital in the castings for the property of fluidity it gives the iron.

After weighing (about 3,000 pounds of pig iron go into a batch), the charge is transported in buckets by crane to the charging door of the cupola, or furnace. It is usually completely melted at around 2850° F., in about an hour's time. It is then run into a receiving ladle, and from it into the pouring ladles.

The latter are transported by mono-rail cranes to the pouring areas, where they move down a line of molds to be filled, which movement is synchronized to speed the pouring operation. In the meantime (while the iron is being melted), molds have been in preparation in another area of the plant.

Molding and cleaning the castings

Molds are in two sections, called the drag (lower half) and cope (upper half), and specially mixed sand is compressed or "rammed" down in-



Center: Rough casting. Loose sand is knocked off and it next enters a mechanical blasting cabinet.

Left: Counter-weighted power tools and roller conveyors are used to speed metal finishing operations.



Below: A. C. Schmieder, Amana Refrigeration, shows new 24 cu. ft. freezer to Cage Cross, Little Rock, Ark.

finishfoto



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Above: Miss Jackie Brunsfeld shows Crosley's refrigerator which has ice cube drawer separate from freezer compartment.

Below: Thor's two new wringer-type washing machines featuring "rocket" styling and one-piece skirts.



MORE PHOTOS FROM WINTER MARKET

see story of
winter home-
furnishings
market, begin-
ning on page 29

Below: Toledo Desk & Fixture's bathroom Lavanette which is available in four color combinations.



Below: Malcolm Lund and Lon Evans, of Murray Corporation of America, inspect the company's new electric range.

finishfoto





A practical answer to color in the kitchen

intelligent handling at the local level can temporarily keep color under control

TEN years ago market studies indicated that women were reasonably content with white cabinets. In McCall's 1941 study, 52.7% showed a preference for white cabinets and 17.8% favored ivory. In 1944, in a similar study, white cabinets were favored by 54.2% and ivory followed with a 20.5% vote. These figures show

relative enthusiasm for white and near white kitchens. Now, however, the picture seems to be changing.

During the last two years an increasing number of kitchens with colored cabinets and/or colored appliances have been seen in advertisements, in editorial features, and in exhibits. These few scattered samples of color

by .
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HOUS
McCA

in the kitchen have met with a surprisingly enthusiastic response.

In the November 1950 McCall's we featured four kitchens—one with white cabinets, one with white base units and blue upper units, one with ivory cabinets, and one with pink cabinets. In all cases white major appliances were used. It was pointed out that stock white enamel cabinets had been painted. The response to the feature was immediate! Letters poured in asking for more information about the colored cabinets.

These were typical questions: Whose cabinets were used? What kind of paint is it? Can I paint my refrigerator? Can I paint my range? Can I buy pink cabinets?

The pink cabinets were greeted with more enthusiasm than the other three colors combined. In fact, pink seems to be the kitchen color women have been waiting for. The ivory kitchen was second, the blue third, and there has been no comment about the white cabinets. The interest in the

pink kitchen was interesting in view of the fact that only 3% voted for pink in the 1941 survey. Incidentally, several men also reacted favorably to the pink kitchen.

Color always has been and always will be an effective selling tool for anything related to the home. Women crave color even though their use of it is feeble. Undoubtedly there would be enthusiastic response to the presentation of colored appliances and cabinets at this time. Several manufacturers are already in a position to give facts and figures. But for the mass market the headaches related to the use of color in major appliances are entirely too big to risk.

Rather than make the jump into the paint pots at the present time, why not offer a substitute program to delay the final plunge? The program could be simple. If a woman wants colored equipment in her new kitchen, stock white cabinets can be sent to a local auto finisher where for a modest sum they can be sprayed the exact color wanted.

→

At left: **Black, white and watermelon-pink**—this dramatic splash starts with blond linoleum and a plaid paper. The paper is embellished with decal roses. Ceiling and cabinets are painted pink and carry the pink through in plastic-covered cushions for the chair and bench.

Below: **Beige, brown and jade-green**—the start is with an unusual plank-patterned linoleum. Walls and cabinet are painted to match its light color and the soffit above to match its darkest color. A curved natural-finish breakfast table forms a desk corner, with simple stools.

finish

by...

Mary Davis Gillies

HOUSES AND HOME FASHIONS EDITOR,
McCALL'S, NEW YORK CITY





Above: **Blue and white**—a New England atmosphere is gained with blue cabinets and blue and white chintz curtains combined with a maple table, and a rocking chair. A white backsplash of tiles and a blue floor complete the setting.

Below: **Ironstone-white and barn-red**—white cabinets, sink and range enhance this scheme by the contrast of white against red throughout the kitchen. A brick-patterned linoleum and a sawbuck table complete a sparkling country kitchen.

The alternative would be to suggest that the client paint the cabinets with one of the new enamels. The result is not as permanent as a baked enamel finish, but it holds up reasonably well. By adjusting color demands in this way at the local level, all of the complications of delayed deliveries, awkward inventories, and colors which do not match can be avoided, at least for the present.

The procedure outlined may only delay the day of colored kitchen units. Open planning has already removed dining room partitions. As houses become smaller and more form-fitting, it is quite possible that the separating wall of the kitchen may go entirely or in part. When this happens, and it is beginning now, kitchen appliances and cabinets will inevitably take on the hues of the living area.



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Right: "Tapping" a rotary-type frit smelter. Screw conveyor is used to charge smelter with raw materials.

to the patterns in the mold halves, prior to closing and clamping for pouring.

A mold car carries the assembled mold to the pouring area, where pouring is electrically controlled. Depending upon the size of the product being cast, seven to ten castings might be poured from one ladle before it needs refilling. Poured molds then move to a shakeout machine, the cope is removed, and the molding sand vibrated out.

Use of mechanical blasting

The grey iron casting is hoisted out of the drag and hung on a conveyor for cooling and transfer to the cleaning room. You now have a piece of cast iron sanitary ware in its rough finished form. Loose sand is knocked off, and the casting next enters a mechanical blasting cabinet.

The casting next passes on a moving conveyor through the automatic shot blast machine cabinets which throw clean abrasive steel grit for further cleaning. The casting is then transferred to production lines for chipping and grinding of imperfections in its surface. During this work, castings generally move down roller conveyors past workers who use counter-weighted power tools to ease and speed the cleaning and smoothing.

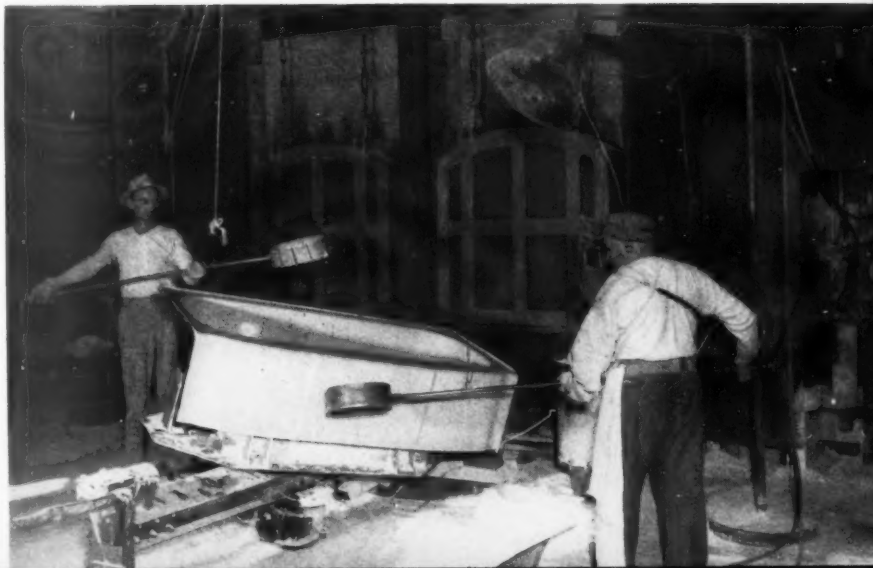
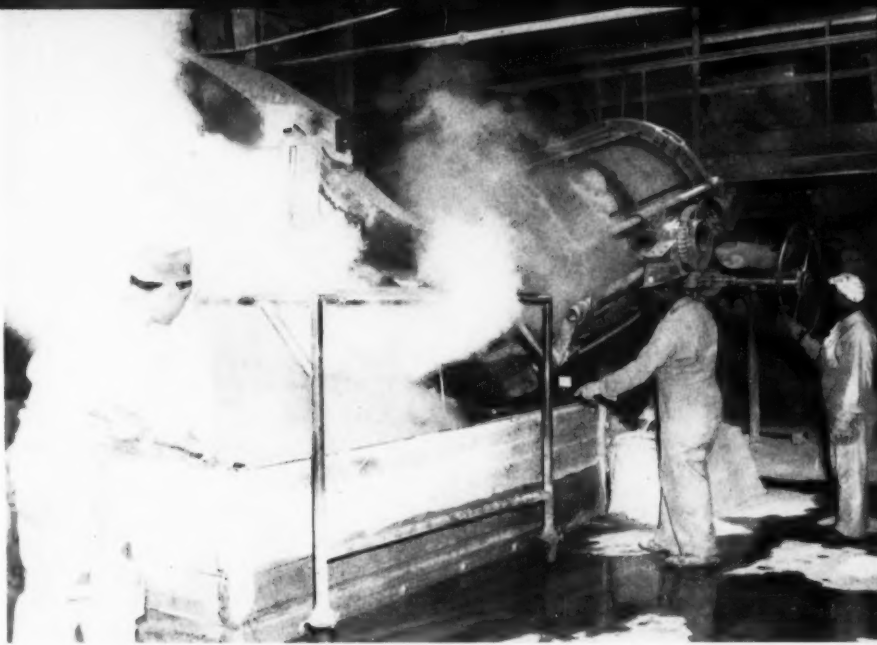
Keen-eyed inspectors next take over, to make sure all blemishes and rough spots have been removed, and to check for location of openings, warpage and trueness to pattern. Pieces are chalked to indicate any additional work, returned to grinders if necessary, or touched up near the

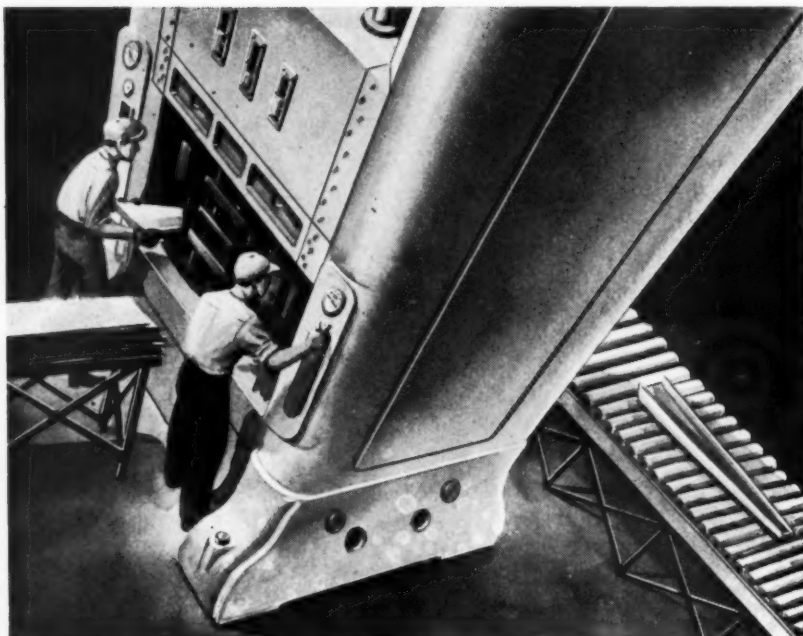
to Page 53 →

Center: Spraying "bond" or "grip" onto casting which had been slightly warmed to accelerate drying.

Right: Method of sifting powdered cover coat enamel on preheated castings. Tilting table is operated by foot.

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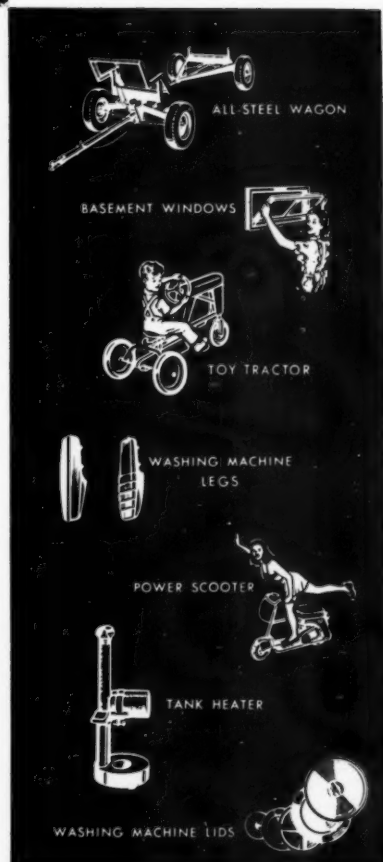


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Home laundry equipment manufacturers hold annual meeting

meeting covers peacetime and defense problems—George Castner elected president

FACTORY output of household laundering equipment in the first quarter of 1951 is expected to fall about 20 percent short of production in the same period last year, according to a statement by George P. Castner, new president of the American Home Laundry Manufacturers' Association and general manager of the Beam Mfg. Co., Webster City, Iowa, at the annual AHLMA meeting held January 6th at the Morrison Hotel in Chicago. It was the industry's first expressed forecast of conditions in which it expects to operate as the country goes further into a general defense economy.

"Our industry believes that further study should be made of the relative essentiality of all consumer products, so that cuts need be ordered in only those metals and materials where reductions can be made without interfering with either the domestic economy or the defense program," Mr. Castner said. "Right now we

are in the course of making detailed essentiality representations to the appropriate authorities in Washington,



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GEORGE CASTNER, AHLMA PRESIDENT

to the end that household washer, dryer and ironer production may continue in as large volume as is possible, keeping uppermost in our minds that defense plans come first."

Mr. Castner hailed the recent copper ruling which distinguishes between essential and non-essential uses but added that shortage of the metal "may well turn out to be our most serious obstacle. There is no substitute for copper in electric motors, required for all washers, dryers and ironers, and in the solenoids which actuate the water valves, clutches and other parts of automatic washers."

"We expect to see no restrictive orders that will place limits on output, as in World War II", he said. "Instead, we believe that restrictions will continue to be imposed through reduction in permissible amounts of strategic items. Our individual members may be affected variously, depending on the design of the products made by each manufacturer and his ability to switch to alternate materials."

"Even with restricted production most companies feel it advisable to carry on product development work for the improvement of utility and

AHLMA officers and executive committee members for 1951 include, left to right: George P. Castner, Beam Mfg.; W. K. Voss, Voss Bros.; R. G. Halvorsen, Hamilton Mfg.; C. E. Anderson, General Electric; F. M. Mitchell, Frigidaire; Joseph Groshans, Speed Queen; Howell Evans, Hamilton Mfg.; R. J. Sargent, Westinghouse; Frank Breckenridge, Automatic Washer. Not available for photo were B. J. Hank, Conlon-Moore; Elisha Gray, Whirlpool; and R. J. Hurley, Thor.

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L. E. DeGroot, C. L. Lawrence, Permold; F. G. Wonderly, GM Moraine Prod. Div.; C. M. Yelton, GM Packard Elec. Div.; Jos. Groshans, R. C. Roll, Speed Queen.

styling and to cope with fast-increasing costs. Of course this will be held subordinate to defense demands, which will have first call on our engineering facilities and other resources."

Over 1,250,000 laundry appliances obsolete in 1950

As support for their seeking continuance of production for civilian needs, "on a basis in keeping with the defense requirements," the manufacturers declared laundering at home to be "the established general method of getting the American family washing done," that there is no practical substitute for their equipment, that more than 1,250,000 of the appliances became obsolete in 1950 and that both the number of factory workers and the amount of strategic materials involved are small.

Resolutions adopted by the Association stressed the importance of

Washington's making decisions "most beneficial to security and least harmful to the economy of the nation and of industry." "An ideal arrangement," it was stated, "would be to maintain all civilian production unchanged, provided that this could be done without affecting necessary production for all security purposes. But unbridled all-industry production cannot be permitted in any season of actual or threatened emergency."

Three hundred attend annual meeting

News of all-time highs in home laundering equipment sales contrasted with the reports of fast-developing material shortages as the nation's makers of household washers, dryers and ironers told the story of their sales and production problems. Three hundred representatives of the industry from Connecticut to Iowa were in attendance.

From the sanitation committee of the Association, G. I. Cockerill, Apex Electrical Mfg. Co., Cleveland, chairman, came word that radioactivated material for the first time in history has been put to use in tests of public washing machines being conducted by the National Sanitation Foundation at the University of Michigan, Ann Arbor, in a study of bacteria removal financed by the Association.

To maintain promotion plans

Despite reduction of materials needed for manufacturing their products, the Association members heard recommendations for maintaining promotion plans, including a television program by the ironer division and "continued information of the public on dryers, so that when they are available again in large supply the selling job will be correspondingly easier." A consumer manual designed to promote use of the fully-



J. L. Reed, Westinghouse; K. E. Ewing, AllianceWare; Russ Lawson, G. E. Schmid, Monarch Aluminum; J. N. Flynn, Apex Electrical; H. L. Rodgers, AllianceWare.

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W. C. O'Connell, Mrs. Natalie Barry, C. E. Anderson, General Electric; C. C. Heppe, Dole Valve; Frank Breckenridge, Automatic Washer.

L. I. Sweetland, Bob Petroff, Hotpoint; Glenn Thompson, Norge; Charles Brewer, General Electric; George Westfall, I. McWeethy, Hotpoint.



equipped home laundry was shelved pending relaxation of the international situation and the industry's return to normal manufacturing and selling conditions.

Competition stiffening in overseas market

Regardless of the world status, competition for household washer business in the overseas market is becoming stronger, with many brands now in the foreign field which were not there before World War II, according to a paper prepared by S. H. Lewis, chairman of the Association's foreign trade committee and export manager of the Easy Washing Machine Corp., Syracuse, N. Y. He declared that this competition also is stimulated by production of washers in England, South Africa and other countries where local manufacturing is springing up.

No manufacturer of dryers for

household washing could keep up with demand in 1950 and the situation will become "even worse" in 1951, R. G. Halvorsen, sales manager of the Hamilton Mfg. Co., Two Rivers, Wis., and chairman of the Association dryer division, declared. Sales nevertheless totalled more than 300,000 units compared to 105,000 in 1949.

"As matters stand now, it looks as though the prime function of our manufacturers for the near future will be to continue informing the public on dryers, so that when they are available again in large supply the selling job will be correspondingly easier," asserted Halvorsen.

Five year dryer sales exceed preceding 40 years

Women spent one-fifth more for household ironers in the past five years than they did for the appliance in the entire forty years of its pre-

war history, said Joseph Groshans, chairman of the ironer section and general sales manager of the ironer division, Algonquin, Ill., of the Speed Queen Corp. Retail value of the 1,900,000 ironers sold 1946-1950 inclusive, totalled \$253,000,000. Sales in 1950 were about 400,000 units with a retail value of about \$55,000,000, an increase of 25 percent over 1949 in units and in dollar volume, he reported.

A 4,000,000 unit washer year

More than 4,000,000 household washers of all types were sold in the United States last year compared to 3,000,000 in 1949, according to Walter K. Voss, chairman of the conventional washer division and head of Voss Bros. Mfg. Co., Davenport, Iowa, who declared that the majority of them were of the conventional type. "In the past half-century washing machines have grown upon

J. J. Woodhead, Colgate Palmolive; George Jordan, Roy Bradt, Maytag; J. H. Harrison, and J. F. Muhr, Ingersoll Steel Division of Borg-Warner.



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D. M. Stratheran, J. P. Jones, K. C. Randolph, Bendix Home Appliance Division of Avco; C. J. Murter, J. C. Weithaus, J. W. Carney, Calgon.





L. H. Miller (left), of Ferro's Liquid Plastics Division, is shown with L. R. Ardis and H. L. Spencer, of Norge Division of Borg-Warner.

the consciousness of the women of the United States to such an extent that to be without one today borders on being a real household calamity," he said.

Comparing the first ten months of 1950 with the same period in 1949, Parker H. Ericksen, vice-president in charge of sales, Bendix Home Appliances, Inc., South Bend, Ind., and chairman of the Association's automatic washer division, declared that the non-conventionals showed an increase of 600,000 units and \$150,000,000 in retail value, and that of the industry's total retail dollar volume, the automatic share of the increase was 75 percent.

Soaps and detergents studied

Summing up the work of the engineering and research committee,

Frank Breckenridge, its chairman and president of the Automatic Washer Company, Newton, Iowa, said that leading engineers of the Association have perfected its washability test procedure manual, developed a comparator washer for gauging the efficiency of competitive models, are working on plumbing codes and proposed standards to be used by testing laboratories and have in progress a five-part study of soaps and synthetic detergents.

From John M. Wicht, chairman of the government committee and vice-president of the Blackstone Corp., Jamestown, N. Y., came the declaration that "tools of war are not our only formidable weapons. We need food and health, as well, and health is dependent upon cleanliness and every factor which contributes to

cleanliness." He said that one duty of the industry's 1951 government committee, of which he later was re-appointed chairman, should be to investigate the availability of alternate materials for the industry's needs.

"What can we save and substitute as an industry?" he asked. He raised the question of model simplification, "maintaining brand status, nevertheless," urged a central reporting system to indicate facilities for converting to war work when required, said that Washington should hasten its naming of an industry-wide advisory committee and pressed for a governmental allowance of 110 percent of normal materials requirements for

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AHIMA Executive Group

President: George P. Castner, general manager, Beam Manufacturing Co., Webster City, Iowa.

Vice Presidents: F. M. Mitchell, manager, laundry equipment sales, Frigidaire Division, General Motors Corp., Dayton, Ohio; B. J. Hank, president, Conlon-Moore Corp., Chicago; and C. E. Anderson, manager, home laundry equipment division, General Electric Co., Bridgeport, Conn.

Treasurer: Howell G. Evans, Hamilton Manufacturing Co., Two Rivers, Wisconsin.

Executive Committee: Consists of the members of the following product division committees:

Conventional Washers: Walter K. Voss, Voss Brothers Mfg. Co., Davenport, Iowa; Frank Breckenridge, president, Automatic Washer Co., Newton, Iowa.

Automatic Washers: R. J. Sargent, manager, laundry equipment division, Westinghouse Electric Corp., Mansfield, Ohio; Elisha Gray, president, Whirlpool Corp., St. Joseph, Mich.

Dryers: R. G. Halvorsen, sales manager, Hamilton Mfg. Co., Two Rivers, Wis.; F. M. Mitchell, Frigidaire.

Ironers: Joseph Groshans, general sales manager, Speed Queen Corporation, Algonquin, Ill.; Raymond J. Hurley, chairman of the board, Thor Corporation, Chicago.

Paul Berner (left), of Benton & Bowles, with E. H. Stevenson, G.E. Beatty, and D. B. Beatty, all of Beatty Bros., Ltd., Fergus, Canada.



A Sunray "must" feature...

PERMA-VIEW

Here's what George E. Mumma, President of The Sunray Stove Co., Delaware, Ohio, says:

"As we designed our 1951 line . . . we felt that one feature that must be included in as many models as possible, was your 'Perma-View' prefabricated oven door window.

"Because of the easy assembly, reduction in the number of purchase parts, and the resultant competitive price, you will be glad to know that we have included your window in every model retailing for over \$100.00.

"I am sure this will result in a substantial volume of sales but we have confidence in your ability to serve us as a result of our very favorable experience with your company during the past two years."

The demand for PERMA-VIEW continues to increase as more and more range manufacturers discover its strong appeal on the sales floor and in the home.

Our engineering department will show you how easily PERMA-VIEW can be adapted to your range. Just indicate your interest by letter or phone.

"OUT OF OUR CARTON—INTO YOUR DOOR"
It's as simple as that!



MILLS ENGINEERING COMPANY

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Years of Experience

5 OTHER GOOD REASONS FOR USING PORCELFRIT

1. **FEWER REJECTS**—Rejects cut your profits and PORCELFRIT cuts rejects to a minimum.
2. **SERVICE ENGINEERING**—Our service engineers are available to make sure that PORCELFRIT works right for your product . . . you take no chances.
3. **LABORATORY CONTROL**—Our ceramic engineers maintain constant contact with the production staff to make sure of highest quality.
4. **IMPROVED SMELTING**—Ing-Rich uses unquestionably the world's finest smelting method, the result of exhaustive research and experiment.
5. **PLANT TESTING**—Right in our own job enameling plant, under conditions of actual use, we use PORCELFRIT. When you get it, it's right!

☆ A man can reach the age of fifty and still be a bum.

But not a corporation. In far less time than that, a company with nothing on the ball shows up as a failure statistic. Competition is so tough, business recessions so draining, the need for advancement so keen, that simply staying in business for half a century is an achievement.

During fifty years of successful operation, a company learns. It acquires that most precious asset, **EXPERIENCE**. Ing-Rich is no exception. Into every pound of PORCELFRIT we make goes the experience of fifty years. That's worth a great deal to you, so make sure you get the full value of manufacturing experience by specifying Plant-Tested PORCELFRIT.



INGRAM-RICHARDSON MFG. CO. OF INDIANA, INC.
 OFFICES, LABORATORY AND PLANT
 FRANKFORT, INDIANA

Winter homefurnishings market

manufacturers exhibit many new home appliance models—both attendance and volume of buying exceeded pre-market expectations

AT the Winter Homefurnishings Market, held in Chicago during the second and third weeks of January, buyers found that practically every major exhibitor of home appliances had on display products which were newly styled for better appearance and redesigned for improved operation. Many new appliance models made their debut despite the uncertainty of manufacturers on how long full production can be maintained, because of defense needs.

"one of biggest in history"

Reversing pre-market predictions, the two-week market was "one of the biggest in history," according to Wallace O. Ollman, general manager of The Merchandise Mart. "Both attendance and volume of buying exceeded all expectations," said Ollman. "This is good indication that merchants feel they can afford to stock more merchandise. It is the best investment they can make in this period."

Lawrence H. Whiting, president of the American Furniture Mart, said that buyer registrations totalled approximately 24,000 at the market, thus exceeding the average of the preceding five winter markets.

Many manufacturers reported the largest market bookings in their history, said Whiting. Nearly all of the 1300 exhibitors at the American Furniture Mart and a Chicago Arena annex said the market has been a better selling one than that of a year ago which holds the attendance record.

Hunt displays "dream furnace"

At their permanent display room in The Merchandise Mart, Hunt Heater displayed a "dream furnace" which is being marketed under the

appropriate name of Mirro-Heat. This smart looking recessed wall furnace, which is said to require no under-bracing or floor-cutting, has a full-length crystal mirror which has a practical as well as decorative use. The gas-fired wall furnace is finished in a neutral gray hammertone baked enamel, with the upper grille of porcelain enamel.

Vanity unit for the bathroom

The Beauty Queen Division of Toledo Desk & Fixture showed their Lavanette which was designed to "take the vanity, with its spillable

powder, perfumes, lotions and creams, out of the bedroom into the bathroom." The new bathroom fixture provides a basin, work surface, medicine chest and vanity drawer, linen storage, towel bar, and hidden waste paper basket.

G-E shows "fashion-wise kitchen"

Everything, including the sink, has been built into a new "fashion-wise kitchen" introduced by General Electric in their display room at the American Furniture Mart. Special features contained in the kitchen include a lily pond, aquarium, com-





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Above: Dan Bowell, right, shows a used refrigerator with Frigidaire's "reconditioned" seal on the door, while Clarence Aspenleiter, left, displays a recently traded-in refrigerator which will also be reconditioned.

Below: G. E. Schroeder and Ralph Rundell, are shown with a new table-top type Toastmaster electric water heater displayed by McGraw Electric.

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Below: General Electric's new "fashion-wise kitchen" served as an appropriate setting for the introduction of new kitchen cabinets shown in background. Cabinets have counter-balanced doors that lift up from bottom.



plete soda fountain, fireplace with barbecue doodads, as well as complete kitchen and laundry equipment. The new display also served as an appropriate setting for the introduction of G-E's new kitchen cabinets which have counter-balanced doors that lift up from the bottom, with underwall cabinet doors opening from the top.

Frigidaire offers reconditioning plan for kitchen appliances

Frigidaire had on display a plan for retailers to use in reconditioning trade-in refrigerators, washing machines, ranges and other appliances. The package plan includes tools, manuals, cost and control records, advertising and promotion material for dealers. A key item in the "practical appliance reconditioning unit package" is a spray painting outfit to be used for such reconditioning work as blending out a small scratch or applying a new white finish on old yellowed units. Frigidaire is also sponsoring a field training program to instruct service personnel and dealers in recommended reconditioning methods, including a film entitled "Practical Reconditioning." (New 1951 Frigidaire refrigerators and ranges were scheduled to be shown for the first time during a company national distributor meeting in Dayton, January 30-31.)

Dexter shows automatic washer

The Dexter Company, a leading producer of conventional washing machines, had a pre-showing of their entry into the automatic washer field. It was indicated that the company's new washer had "extra good reception from buyers," and that production would soon be underway.

Washers with "rocket" styling

Two new wringer-type washing machines, featuring "rocket" styling and one-piece skirts and legs of molded Fiberglas, were introduced by Thor Corporation. The two models, both having 9-pound capacity, are known as V-4 and V-3 in keeping with their styling which is patterned after the lines of a rocket. According to a Thor spokesman, the new machines mark the biggest change in

the company's wringer washer design in 15 years.

New versatile clothes dryer

National Engineering & Manufacturing exhibited their entry into the home laundry equipment field, a portable electric clothes dryer designed for apartments and small homes. The dryer's electric fan, located in the lid, may be raised to an erect position and be used also as an electric heater or hair dryer.

Detroit-Michigan gas ranges receive top design awards

On display at The Merchandise Mart were the new 1951 Detroit Jewel and Garland gas ranges which received two top design awards. Products of Detroit-Michigan Stove Co., the new ranges received the "first Gold Medal ever bestowed a cooking appliance by the Fashion Academy of New York." The award was for "distinctive design and superior styling."

For the second successive year, Detroit-Michigan's two gas range lines received the Merit Award of the American Society of Industrial Engineers. The award was for "leadership in research, engineering, styling, safety, beauty and manufacture in the domestic range and commercial cooking field."

Leonard's 70th anniversary

The Leonard Division of Nash-Kelvinator celebrated its 70th anniversary with the introduction of a new model electric range with an oven which "preheats to 350° in less than 5 minutes," and a radiant broiler that starts broiling in 10 seconds.

Trend to color continues

The gradual trend to color in home appliances followed the same pattern as in past markets. A few more manufacturers displayed appliances designed to fit in with the color pattern of milady's home.

In their space in The Merchandise Mart, Easy Washing Machine's display of home laundry equipment was highlighted by two automatic wash-

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Above: The Dexter Company, producers of conventional washing machines for many years, introduced its first automatic washer. Miss Marilyn Eckdahl shows the new washer flanked by two conventional washers.

Below: Jim McCarty and James McCarty look over National Engineering & Mfg.'s entry into home laundry equipment field—a clothes dryer.



Below: Miss Lynn Haigh demonstrates Youngstown Kitchen's new Jet-Tower automatic dishwasher and sink combination installed in one of the model kitchens in the company's display space in The Merchandise Mart.



The outlook for gas appliance production

gas appliance industry prepares for defense production—expects 25 per cent drop in consumer production during 1951—advertising and promotion remains at 1950 levels

by Edward R. Martin • DIRECTOR, MARKETING & STATISTICS, GAS APPLIANCE MANUFACTURERS ASSOCIATION, NEW YORK CITY

PERHAPS the only certainty concerning 1951 is that it will be a year of uncertainties. The meanings of predictions and forecasts pre-saging its activities are, therefore, reduced to a minimum. The availability of essential metals for production of consumer goods, the extent to which production facilities will be converted to defense goods, the availability of manpower, and a host of other controls and elements combine to form the uncertain economy in which we will operate during 1951.

This survey, "General Business Outlook for 1951", which relates wholly to gas appliance and equipment manufacturers, should not be regarded as an attempt to "crystal ball" our industry's activities or position during the next twelve months. Rather, it is a compilation of the thinking of gas appliance manufacturers as of the middle of December, 1950.

This "General Business Outlook" survey has been made annually for the past several years. It was undertaken this year mainly because manufacturers requested that we do so and because it was felt inadvisable to break the continuity of the availability of this type of information.

The questions asked in our survey form (December 4, 1950) were held to a minimum, and each question was introduced by: "Short of all-out war, and assuming that world and national conditions remain unchanged". Answers to questions on company operations are naturally reliant on existent conditions, and are subject to changes in accordance with the present day shifting scenes.

Perhaps our most significant question related to the conversion of facilities to defense production during 1951. That the majority of

plants are planning this is probably the most significant and concrete fact which can be drawn from these findings.

Generally speaking, the survey indicates that the majority thinking of all branches of the industry is fairly uniform. Volume-wise, production during 1951 will be about 25% below 1950 levels; the majority also indicate that they are contemplating no change in advertising and promotional plans during 1951 as compared with 1950 activities; and companies accounting for about two-thirds of the reported activity expect to convert part of their facilities to defense production.

The following summary of survey data covers reports received which relate to 152 individual operations. It covers reports received from manufacturers of domestic gas ranges, automatic gas water heaters, gas central heating equipment, gas-fired floor furnaces, gas-fired direct heating equipment, gas unit heaters, gas hotel and restaurant equipment, gas incinerators, clothes dryers, refrigerators, poultry brooders and side-arm water heaters. The combined production of these reporting companies during 1950 was 4,306,449 units. This does not include such items as controls, valves, fittings, etc., because the manner in which the majority of manufacturers of this kind of equipment reported did not permit us to base our findings on "unit shipment" figures. However, we will comment on their thinking on specific questions.

Converting to defense production

Of the 152 reports received, 101 reports, accounting for 64% of the 1950 shipments, expect during 1951 to convert from 10% to 100% of

their production facilities to defense production. The consensus of these 101 companies is that 28% of their facilities will be devoted to defense during 1951.

Some 41 reports indicate that should national conditions remain as they were when the survey was made that they would not convert to defense production during 1951. However, a few of these reports did state that they would add new facilities which would be used for defense production.

The twelve reporting control, valve, fittings, etc., manufacturers reflect the same thinking as the appliance manufacturers. Of these reports, 9 expect to convert from 10% to 50% of their facilities to defense production, while 2 do not intend to do so during 1951 and one is undecided.

Looking at defense production in relationship to the entire industry (as reported), indications are that each gas appliance industry will convert at least the following percentages of their facilities:

Domestic gas ranges	20%*
Automatic gas water heaters	16%*
Central heating equipment	24%*
Direct heating equipment	12%*
Gas unit heaters	7%*
Gas-fired floor furnaces	21%*
Gas hotel & restaurant equipment	33%*
Total (including incinerators, clothes dryers, refrigerators, poultry brooders, but excluding valves, controls, fittings, etc.)	16%*

* These percentages would be increased if all companies contemplating going into defense production were in a position to estimate to what degree. Too, they would be increased still further by the reports which indicate they were undecided at the time the survey was made and by those companies contemplating new facilities to handle defense production.

1951 production

compared with 1950

Looking at all reports received
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Electrical appliance, equipment production

national emergency demands are viewed in light of the electrical manufacturing industry's 1950 productive capacity — it's "back to mobilization" in 1951

by *W. J. Donald* • MANAGING DIRECTOR, AND *A. J. Nesti* • CHIEF STATISTICIAN,
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION, NEW YORK CITY

A SHORT year ago, in viewing the outlook for the electrical manufacturing industry, the theme was "Back to Selling", or, in other words, back to more normal days of business. This theme has now been changed abruptly to the grim one of "Back to Mobilization."

Nevertheless, the electrical manufacturing industry stands ready to take its place in the mixed "peace and war" production pattern of 1951. The industry's abundant resources will be fully available to help build the products necessary to assure the safety of our country.

1950 — a highly productive year

Some idea of the productive capacity that will be brought to bear on the problems ahead of us can be obtained by looking at the accomplishments of the industry in 1950.

The year just ended saw the industry establish new all-time peaks for peacetime production. Over-all volume reached 8 billion dollars, a figure which was topped only by the peak war production years of 1943 and 1944.

How far back to normal the industry and its customers had gone since 1945 can be seen when we note that sales of electric appliances increased 33% in 1950 over 1949, as compared with an increase of 15% for over-all industry sales.

Some of the individual appliances registered impressive sales totals: 6,200,000 electric household refrigerators, 900,000 electric farm and home freezers, 1,800,000 electric ranges, 990,000 electric storage water heaters, 3,700,000 vacuum cleaners, 4,300,000 washing machines, 3,000,000 coffee makers, 4,500,000 toasters, and millions of other appliances — all much higher than 1949 totals, and

many setting new all-time highs in electric appliance sales. Some new appliances also did well in 1950 with 230,000 electric dishwashers and 250,000 food waste disposers being sold during the year.

Electrical products going into building construction were also very strong. Sales of such items as panel boards, knife switches, fuses, wiring devices, and conduit fittings were 15% higher in 1950 than in 1949. The effect of building construction during the year was also reflected in the sales of signalling and communication equipment which was 20% higher than in 1949, and in the sales of illuminating equipment which experienced an increase of 10%.

Sales of insulated wire and cable increased sharply (30%) over 1949, and other branches of the industry, such as industrial apparatus, insulating materials and X-ray apparatus, registered substantial gains in output.

In only one branch of the industry was there a falling off of sales, and that was in the generation, transmission and distribution equipment field where overall sales of such equipment were 10% below 1949 levels.

These figures serve to describe the condition in which the electrical manufacturing industry faces the new problems of 1951.

How it looks for 1951

Exactly how these problems will affect the various branches of the industry, of course, remains to be seen. However, the tightening of material supplies and scheduling of production of war materiel will undoubtedly cut down the volume of peacetime goods.

Appliance output may drop as much as 30 to 40% from 1950 totals, while illuminating equipment may

drop 10 to 20%, and building equipment and supplies may suffer a loss of 15-25%.

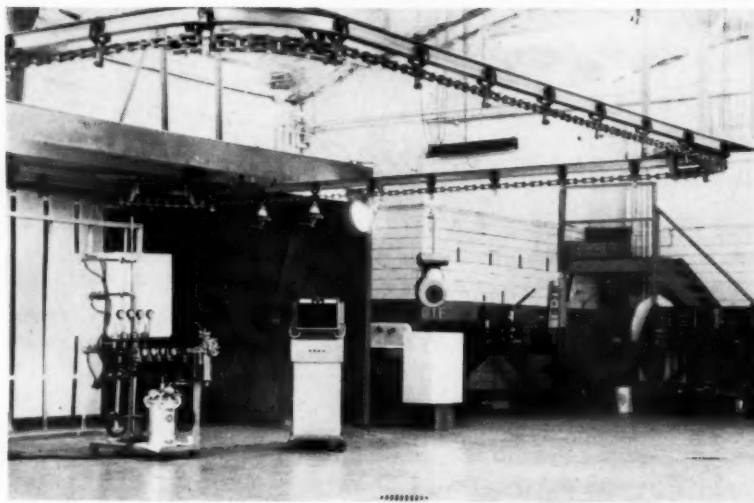
On the other hand, sharp increases may be expected for generation, transmission and distribution equipment since electric power will be so vital in the mobilization picture. Output of such products as transformers, turbines, generators, and electrical measuring instruments may rise as much as 25% over 1950. Industrial apparatus, such as motors, welding equipment and industrial controls, may also see 25% gains in production next year.

In other words, losses in output of some electrical goods will be more than made up by gains in the output of other electrical goods, and, on top of this situation, there will be the possibility of heavy production of non-electrical items within the industry as was the case during the years 1941 to 1945, inclusive.

These accomplishments of 1950 and expectations for 1951 emphasize the great versatility, as well as the great productive capacity, of the electrical manufacturing industry. It is in the strength of such an industry that we as Americans can take hope when, as is the case at present, world conditions look bleak. This industry will join all industries in providing the "flow of materials" which will be so sorely needed during the period just ahead. It is also a real comfort to know that these industries have never failed to meet any requirement that was demanded of them.

It is "Back to Mobilization" for the electrical manufacturing industry, with all the strength and ingenuity which can be brought to bear, and with the hope that its efforts will help to restore "Back to Selling" days as soon as possible.

Electrostatic spraying experiments with porcelain enamel



EXPERIMENTS and plant tests are being currently conducted with a view to perfecting the application of porcelain enamel finishes with electrostatic spraying equipment.

The work is being conducted by manufacturers of spray finishing equipment and electrostatic equipment in cooperation with the producers of enamel frit.

The process has been successfully used for many applications where paints (organic finishes) are involved, but applications in the porcelain enamel field have been limited.

Early work with electrostatic spraying equipment and porcelain enamels was reported in earlier issues of *finish*.

See: "Electrostatic Spraying Offers New Possibilities for Enamel Application" by Richard E. Helmuth, January, 1945, finish.

"Electrostatic Spraying of Porcelain Enamels" (in three parts) by James B. Willis, June, July, and August, 1945, finish.

A production use for the process is described in:

"A Three-in-One Plant Synchronized for Quantity Production" by Claude Cleghon, October, 1946, finish.

Fineness of enamel is now considered, on the basis of current work, to be one of the most important factors governing the successful use of the process for enamel. Theories re-

lated to specific gravity and "set" have also come in for some serious reconsideration.

Success is reported in connection with flanges on range oven and broiler doors in that they have been sprayed without any hand operations.

On the basis of successful tests to date it is planned to continue plant work in the interest of determining the practical adaptability of the process for porcelain enameling work.

GAMA MEETING APRIL 16-18

The 1951 annual meeting of the Gas Appliance Manufacturers Association will be held at the Drake Hotel, Chicago, April 16, 17 and 18.

BEST WAY TO FIGHT ATOMIC RADIATION

A thorough bath or shower in uncontaminated water as soon as possible after a near-by atomic explosion will increase your chance of survival, according to the Plumbing and Heating Industries Bureau.

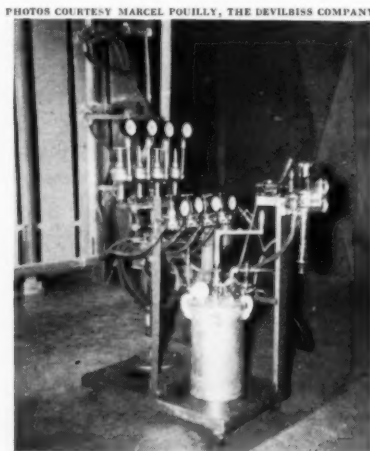
Based on recommendations of the National Security Resources Board and national health and safety authorities, the Bureau says that hard scrubbing with plenty of soap and hot water will do much to reduce the possibility of harmful radioactive contamination.

ADMIRAL TO SPONSOR SPORTS BROADCASTS

Admiral Corporation, appliance and television manufacturer, has acquired the radio and television rights to broadcast three major sporting events of the Chicago Tribune Charities next year, reports Seymour Mintz, advertising director.

The events are the Chicago finals of the Golden Gloves boxing tournament, March 9; finals of the International Golden Gloves competition, March 29; and the College All Star-Professional League Champions football game, to be held August 17. Financial arrangements call for payment of \$100,000 for the football game and \$22,500 for each of the boxing contests, a total of \$145,000.

Left: Control panel for electrostatic spraying equipment. Right: Typical equipment set up for development of electrostatic spray.



PHOTOS COURTESY MARCEL POUILLY, THE DEVILBESS COMPANY

NEWS

STEEL KITCHEN CABINET MANUFACTURERS' MEETING

The Steel Kitchen Cabinet Institute, through action of its board of governors, confirms the previously announced date of Wednesday, February 14, as the time, and Cleveland Hotel, Cleveland, Ohio, as the place, for a full discussion of industry problems.

At a luncheon, to be served on February 14, all manufacturers of steel kitchen cabinets, whether members of the Institute or not, are invited to be present and take part in the consideration of the industry status.

For some time the Institute has been establishing standard specifications relative to dimensions and construction. Over 20 tests have been determined which steel kitchen cabinets must meet before getting the "Quality Tested Seal of Approval." The tests are conducted by an independent international firm of testing and inspection engineers, who conduct the work in their own laboratories.

CRIBBEN & SEXTON BUYS NEW PLANT IN MICHIGAN CITY

Cribben and Sexton Company, Chicago manufacturers of Universal gas ranges, announced that it has entered into a contract to purchase a plant on the outskirts of Michigan City, Indiana. The property consists of approximately forty acres of land improved with a principal factory and office building containing about 150,

000 square feet, as well as subsidiary buildings and railroad sidings. The seller is Stefco Steel Company, producers of prefabricated steel industrial buildings and other contract manufacturing.

W. C. Davis, president of Cribben and Sexton, stated that his firm has been awarded a prime government contract, the item to be produced in substantial quantity at the new plant.

DOMESTIC RANGE SHIPMENTS AT ALL-TIME PEAK DURING 1950

Industry-wide shipments of domestic gas ranges exceeded 3,000,000 units, or approximately 1,000,000 units more than 2,069,600 units shipped during 1949. This establishes a new "peak" year. The previous peak year was 1948 when shipments totalled 2,750,000 units.

Electric range shipments also reached a new high during 1950, totalling 1,830,000 units as compared with 1,056,000 units in 1949. The previous "peak" occurred in 1948 when 1,600,000 units were shipped.

ROBERTSHAW-FULTON APPOINTS WEST COAST LAB DIRECTOR

The appointment of H. W. Geyer as director of the West Coast Research and Development Laboratory of Robertshaw-Fulton Controls Company was announced by T. T. Arden, executive vice president.

Geyer is well known for his many years of service with the Southern Counties Gas Company of California

in charge of utilization, laboratory tests, customer service and the training of utility service men. He previously served the Philadelphia Gas Works Company as industrial fuel engineer. Geyer has served on a number of American Gas Association requirements committees and on commercial, residential, technical, utilization and research committees.

Geyer succeeds S. G. Eskin, who is transferring to the executive offices of the Robertshaw-Fulton Controls Company at Greensburg, Pennsylvania, to serve in the capacity of technical advisor.

CHICAGO STAMPERS TO DISCUSS STAINLESS STEEL DEEP DRAWING

At the February 14 dinner-meeting of the Chicago District of the Pressed Metal Institute, Stanley Cope, of the Acme School of Die Design Engineering, will be the featured speaker. His subject will be "The Deep Drawing of Stainless Steel." Reservations for the meeting, to be held at the Graemere Hotel, should be addressed to Miss Grace Griggs, Northern Metal Products Co., 3300 W. Lake St., Chicago 24, Illinois.

EDGEWATER STEEL ACQUIRES TRACY MANUFACTURING CO.

Edgewater Steel Company, of Pittsburgh, has acquired the name, plant, and substantially all of the other assets of Tracy Manufacturing Company, producers of kitchen sinks and cabinets, according to an announcement by Davitt S. Bell, president of Edgewater.

On January 2, Edgewater started production against the backlog of Tracy's orders and will continue to carry on and conduct the same type of business at the Tracy plant located along the Ohio River in Pittsburgh. No changes in basic products or distribution channels are contemplated, and the personnel of the Tracy organization will remain intact, except that Charles Wiener, president of Tracy, is retiring from its activities.

The Tracy plant will be operated under the name of Tracy Manufac-

turing Company Division of Edgewater Steel Company, the report states.

LINDBERG ENTERS AUTO ACCESSORY FIELD

Lindberg Engineering Company, a leading manufacturer of industrial and laboratory furnaces, has entered the auto accessory field on a test

basis with the newly established two-bladed propellor car ornament. Other ornaments and accessories are contemplated.

According to Lindberg management, the props were initially manufactured to see whether product diversification and entry into the consumer market could be easily accomplished by a manufacturer of heavy industrial equipment.

PEMCO HOLDS ANNUAL HONOR SERVICE SOCIETY DINNER

Recently seventy-five members and guests of the Pemco Honor Service Society met at the Lord Baltimore Hotel, Baltimore, to hold the Society's Thirteenth Annual Dinner, and to pay tribute to those employees of Pemco who have been with the company ten or more continuous years. Fifty-one members of the Society, representing a total of 1,002 years of service, were present.



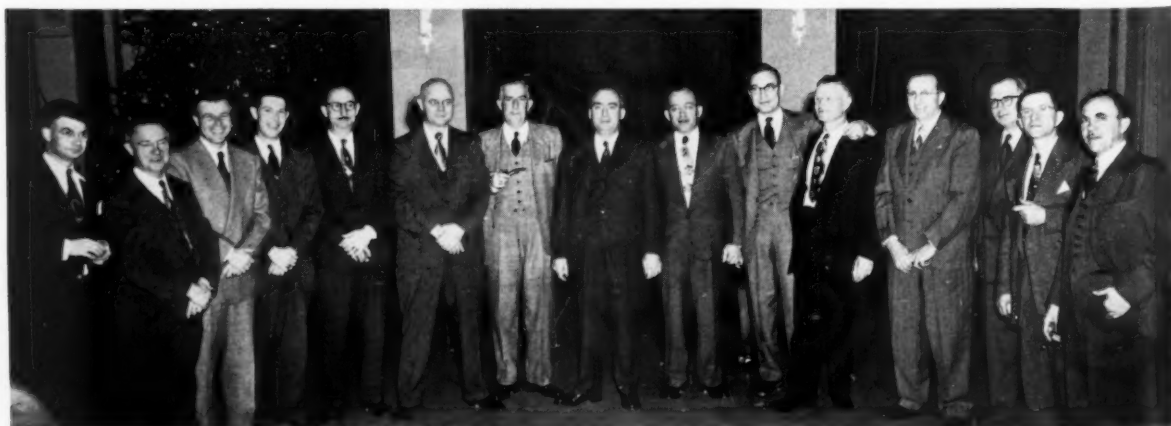
Among the guests were members of the board of directors and other company officials, as well as Pemco sales and service representatives from various sections of the United States.

W. R. Greer, vice president, presided as toastmaster. Richard Turk, president of Pemco, opened the meeting with an address of welcome.

Herbert Turk, executive vice president, presented awards to the following members: A ten-year service button to Eugene V. Bynion, fifteen-year service buttons to Frank

Eugene Bynion, left, is welcomed into Honor Service Society upon completion of 10 years of continuous service by Herbert Turk, executive vice president of Pemco.

Members of the Society who received rings for 20 or more continuous years of service with Pemco are, from left: Philip Lubertine, Franz Nowak, Anthony Lubertine, Joseph Steigerwald, Paul Stuft, Philip Dietz, W. Russell Greer, Richard Turk, Herbert Turk, P. J. Buettner, Anthony Dietz, Charles Simonsen, Albert Kellner, Emil Giese, Edw. Gronberg, Karl Turk, Sr., Andrew Sanders, and J. Fleischer, who also received rings, are not shown in photo.



A. Ewing, Edward L. Cherry, Harry Ingersoll, Alfred H. Gronberg, Frank S. Zeller, John A. Zingor, Edward G. Porst, Lyman C. Athy, and Helen Steck Hall.

In addition, service rings were presented, for the first time, to 18 Society members who had completed more than 20 or more years of continuous service with Pemco.

SUPERINTENDENT APPOINTED FOR U.S.S. FAIRLESS WORKS

Albert J. Berdis, formerly of Whiting, Indiana, and a Purdue University graduate, has been appointed general superintendent of United States Steel Company's new Fairless works at Morrisville, Pennsylvania. His appointment was announced by S. M. Jenks, manufacturing vice president of the company. He will manage operations of the new wholly integrated plant which the company will build along the banks of the Delaware River near Morrisville, with construction to begin early next spring.

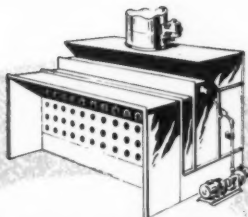
FIRE DESTROYS FLORENCE STOVE KANKAKEE WAREHOUSE

On Tuesday, January 2, fire destroyed the large warehouse of Florence Stove Company, at Kankakee, Illinois.

Appliances reported destroyed in the blaze included 17,000 gas ranges, 12,000 oil heaters and 4,000 hot



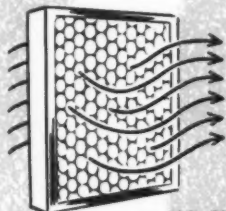
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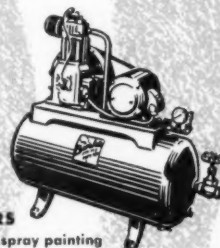
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CERAMIC SPRAY BOOTHS**
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7 models supplying clean, dry air



AIR SUPPLY SYSTEMS
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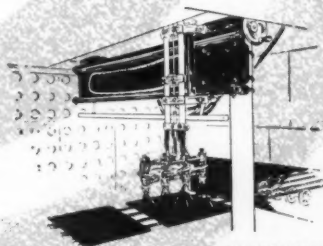
AIR COMPRESSORS
24 models especially for spray painting



HOSE AND ACCESSORIES
12 types of hose,
full line of accessories



MATERIAL TANKS
corrosion-proof construction



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Wherever fine ceramic finishes are applied, you will find Binks precision-made spray finishing equipment ...and for good reasons:

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water heaters. Estimated dollar loss was approximately 3½ million dollars.

FIRST AFRICAN FRIGIDAIRE

The first Frigidaire to be made in South Africa recently came off the production line of General Motor's electrical household equipment plant at Port Elizabeth, South Africa. Import controls are said to have speeded up GM's plans for the manufacture of refrigerators in the country.

WEAVER AWARD, SERVICE PINS AWARDED AT FERRO DINNER

Established in 1947 by R. A. Weaver, board chairman of Ferro Enamel Corporation, the annual R. A. Weaver Award for outstanding contributions to the porcelain enameling industry and to the company was presented to Earl D. Skillicorn, manager of pro-

NEW CALORIC STOVE OFFICERS

The board of directors of Caloric Stove Corporation has announced the election of new officers and directors.

Nathan R. Klein, former president, is now chairman of the board. Julius Klein, heretofore vice-president and sales director, is the new president, and Meyer Klein vice-president. Julius Klein will continue in the executive supervision of company sales in addition to his new management responsibilities.

cess and quality control.

The award was made at a dinner for company executives in Cleveland on December 14, and was accompanied by a cash prize and a 15-year service pin. Given annually to the person who has done most for the company in the opinion of a committee of Ferro Enamel executives, the award cited Skillicorn for his part in "maintaining highest quality production under difficult conditions and in helping to set new production records."

R. A. Weaver, left, presenting the "R. A. Weaver Award" to Earl Skillicorn.



R. A. Weaver, board chairman, presenting 20-year service pin to C. D. Clawson, president, as other Ferro executives look on. Presentation was made at executive's dinner held in Cleveland, Ohio.



Skillicorn has been with Ferro Enamel since he graduated from Kent State University in 1935, except for the period between 1937 and 1940 when he was manager of porcelain enameling control for Seeger Refrigerator Company of Evansville, Indiana. He rejoined Ferro Enamel in 1942 in the customer service laboratory and assumed his present position in 1949.

Also receiving jeweled service pins at the dinner were: president C. D. Clawson, 20 years; executive vice-president F. S. Markert, 25 years; L. H. Miller, manager of the Vedo Division, 10 years; W. B. Owen, production manager, 20 years; C. M. Andrews, technical director of the International Division, 5 years; and H. C. Tucker, manager of the Glaze Frit Division, 10 years.

BATTELLE TO STUDY METAL-CERAMIC BODIES FOR AIR FORCE

A program of research on the behavior of ceramic bodies under stress is now in progress at Battelle Institute, Columbus, Ohio.

The program is sponsored by the Air Force's Materials Laboratory at Wright-Patterson Air Force Base and is aimed at establishing relationships and generalities in mechanical properties through precise compression, tension and shear measurements. Incidental to the program will be the development of suitable testing methods for brittle materials.

Representatives of each of several basic ceramic bodies are to be studied, including metal-ceramic bodies, silicate porcelain, oxide porcelain, and others.

P.B.McBRIDE NAMED FEDERAL RESERVE BANK DIRECTOR

P. B. McBride, president of Porcelain Metals Corporation of Louisville, has been appointed a director of the Louisville Branch, St. Louis Federal Reserve Bank. The appointment was announced in Washington by the Federal Reserve Board.

McBride moved to Kentucky in 1927 from Cleveland. He organized Louisville Enameled Products Com-

pany and Wabash Sani-Tray Company, which he consolidated into Porcelain Metals Corporation in 1934. In 1939 he was elected president of

the Porcelain Enamel Institute and served in that capacity for five years. He has been treasurer of the Institute since 1947.

WINTER ORE SHIPMENTS TO AID STEEL PRODUCTION



United States Steel Company's South Chicago plant has begun thawing an experimental shipment of 50 carloads of frozen ore from the Mesabi range in northern Minnesota.

It is the first time ore has been shipped by rail in winter. Normally the ore is moved by boat during the Great Lakes navigation season, with stockpiles carrying the mills over the winter months.

U.S. Steel plans to ship 2,000,000 tons this winter to plants in Chicago, Gary, Indiana, Pittsburgh, and Youngstown, Ohio. The company

plans to continue regular shipments from the mines until March 15. The Great Lakes usually open for navigation in April.

At Gary the thawing is being done inside the company's gates. Four old locomotives leased from the Burlington Railroad provide the steam to warm the tightly frozen ore (see photo).

The thawing process consists of piercing a load of ore with a steel jet and applying steam. Prior to shipment, the ore was treated at the mines with calcium chloride to retard freezing.

O'KEEFE & MERRITT MERGES WITH TAPPAN STOVE

Merger of two of the nation's prominent manufacturers of gas ranges was completed near the end of 1950.

The announcement was made jointly by A. P. Tappan, president of The Tappan Stove Company, Mansfield, Ohio, and D. P. O'Keefe, president of O'Keefe and Merritt, Los Angeles.

Officials of both companies emphasized that the merger would not result in any change in personnel or present methods of distribution. The intended immediate benefit of the merger is the exchange of engineering and manufacturing information.

The combined engineering and production facilities are expected to play an important role in defense production during the current emergen-

cy. During World War II, the Tappan plant was devoted 100 per cent to war work, primarily in aircraft components. The O'Keefe and Merritt plant facilities were devoted in their entirety to the production of power generating equipment and other material for the armed services. Both plants won Army-Navy "E" awards for excellence in production.

Both companies will remain autonomous and will continue to operate exactly as in the past. O'Keefe will continue as president of O'Keefe and Merritt, and Tappan as president of The Tappan Stove Company. No change of officers of either company is anticipated.

It was disclosed that all of the

shareholders of O'Keefe and Merritt exchanged all of their outstanding common stock for Tappan common stock and cash, the combined total representing a value of approximately \$5,000,000. This is believed to be one of the largest transactions ever consummated in the gas range industry.

In issuing a statement following the final signing of the contract, O'Keefe said "We are happy to become associated with Tappan, particularly because of the extensive Tappan research and development program. When combined with our own effort, this should result in a great contribution to the gas industry".

Commenting on the merger, Tappan said "In the interest of expansion, we have studied a great many range plants in the last few years. We are firmly convinced that the O'Keefe and Merritt plant is one of the finest gas range factories in the United States. We are extremely pleased at the prospect of association with this progressive concern."

O'Keefe and Merritt was founded in 1919, and the Tappan firm was founded as a partnership in 1881.

BISSELL HEADS GAMA WATER HEATER PROMOTION COMMITTEE

R. A. Bissell, sales promotion manager, Bryant Heater Division, Affili-



ated Gas Equipment Inc., Cleveland, Ohio, was appointed chairman of the Sales Promotion Committee, Gas Water Heater Division, Gas Appli-

ance Manufacturers Association, it was announced by H. Leigh White-law, managing director of GAMA.

Bissell served on the Sales Promotion Committee last year and was active in the "Court of Flame" auto-

matic gas water heater campaign. He was formerly gas heating supervisor for the Brooklyn Union Gas Company, and is presently serving on the Water Heating Committee of the Residential Gas Section of the A.G.A.

Theiss, Miss Carrie Dubiel, Albert Heasley, Mike Duda and Nick Mer-ante, 5 years.

RHEEM UPS C. V. COONS

Clifford V. Coons, vice president in charge of sales, Rheem Manufacturing Company, has been elected a director of the firm, increasing the number of directors from seven to eight.

REFRIGERATION EXPOSITION SLATED FOR CHICAGO

The 7th All-Industry Refrigeration and Air Conditioning Exposition will be held November 5-8, 1951, at the Navy Pier, Chicago, Illinois.

HOUSEWARES FIRM EXPANDS ADVERTISING BUDGET

A series of sales meetings which will move from coast to coast over a two-week period was announced by John Brooks, vice president in charge

O. HOMMEL SERVICE AWARDS TO TWENTY-THREE EMPLOYEES

Twenty-three employees of The O. Hommel Company, manufacturers of ceramic supplies, were given service awards by Ernest M. Hommel, president, at a company presentation in December. Service recipients ranged from 5 to 35 years. The awarding of service pins has been a company custom since 1938.

In an address to all employees of the company's Carnegie plant, Mr. Hommel pointed out that the firm has 60 years of experience to draw on for guidance during the uncertain months that lie ahead for all business.

"I feel that every man or woman in our organization, even though he or she may have been working with me for only a few months, is doing

his or her very best. I hope all of our new friends are finding their work and our company so interesting that I have the opportunity to welcome them into the group that is privileged to wear our service emblem," said Mr. Hommel.

The following employees received awards this year: Lloyd Lyons, 35 years; W. E. Dougherty, 30 years; Miss Sally Fuss and Frank Ovesney, 20 years; Paul Henry, J. H. Sylvester, Ed Feeney, I. F. Thompson and W. T. Campbell, 15 years; Walter King, F. W. Cheesebrough, John Ewing, E. E. Marbaker and Miss Nonie Cunningham, 10 years; C. F. McGovern, A. M. Schmutz, Frank Welsh, Bernie Zebroskie, Miss Dorothy

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Wire Forms • Stampings

of housewares sales for the Ekco Products Company.

The meetings will cover general sales problems of the next six months, with special emphasis on Ekco's expanded advertising budget for the first half of 1951. The large housewares firm will nearly double its 1950 expenditures of the same period, Brooks said.

Arthur Keating, chairman of Ekco Products Company, announced that the firm has purchased the name and assets of Lusto, a leading household copper cleaner. "Our plans are to merchandise and sell Lusto through our regular trade channels exactly as we do copper-bottomed Ekcware", Keating said.

COOLERATOR SALES UP 70%

Coolerator sales for the 1950 fiscal year were 70% ahead of the previous year, according to Ward R. Schafer, vice president and general manager.

NEW SALES MANAGER FOR G. E. ALKYD RESIN PRODUCTS

Frederick G. Weigand of General Electric Company's chemical department, has been appointed sales manager of alkyd resin products. John A. Zellhoefer, sales manager for the chemicals division, has announced.

In his new post, Weigand will have responsibility for the sale of G.E.'s alkyd resins, insulating varnishes and compounds, enamel, plasticizers, and other products. He will headquarter at Schenectady, New York.

Weigand joined the company over a year ago from Valentine & Company, where he was engaged in research and the production of paints. Prior to that he was with Irvington Varnish Company and Sapolin Paint Company.

CLEANLINESS GETS BOOST AS BATHTUB SALES SET RECORD

Chalk up a new record for cleanliness plus in 1950!

Production of automatic water heaters and bathtubs both set new highs in 1950, according to the

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Filter**

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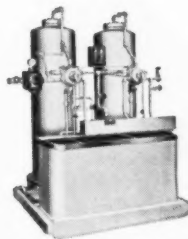
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Plumbing and Heating Industries Bureau.

Production of bathtubs in 1950 for the first time in history exceeded two million units. The previous peak year was 1948 when a total of 1,947,223 bathtubs were made.

OPTIMUS BUYS CIRCO LINE

The sale to Optimus Equipment Co., of Matawan, N. J., of all manufacturing and sales right to the

Circo line of vapor degreasers, allied metal cleaning products and solvent, has been announced by Fenton M. Davison, vice president, Circo Products Co., Cleveland.

BRITISH INDUSTRIES FAIR, APRIL 30 THROUGH MAY 11

Great Britain's annual industrial show, the British Industries Fair, will be held in 1951 from April 30 through May 11. Heavy industry

will be centered in Birmingham, and other trades will be on show in London in the biggest display in the Fair's 35-year history.

Advance inquiries from business firms in the United States indicate that the number of American buyers attending will exceed the 1950 record, which was 50 per cent higher than that in 1949.

BEDE PRODUCTS APPT.

The appointment of Frank G. Drake as general sales manager of

In this weathering room time passes thirty times faster than normal.



Where INSULATION is Food for Thought

Looks like an oven full of cakes, but it isn't. It is a weathering chamber testing Fiberglas Insulation. In this chamber, wet and dry, hot and cold conditions are produced with such rapidity that thirty years of weathering go by in twelve months.*

This torture room is but one of many test devices used at the Fiberglas Research Laboratories . . . where products made of fibers of glass are proved. It is here that Fiberglas Insulation, product of Owens-Corning Fiberglas Corporation, is certified as fit for fabrication by many manufacturers . . . fit to meet and exceed standards . . . fit to help America live better.

The home appliance industry was among the first major users of Fiberglas Insulations, and its increasing use of them is gratifying evidence of the quality and reliability our testing has built into these insulations. The end result, of course, is the well-established acceptance by the consuming public of Fiberglas Insulation as a quality feature of quality appliances. Owens-Corning Fiberglas Corporation, Dept. 109-B, Toledo 1, Ohio.



*Fiberglas is the trade-mark (Reg. U. S. Pat. Off.) of Owens-Corning Fiberglas Corporation for products made of or with fibers of glass.

FIBERGLAS IS IN YOUR LIFE...FOR GOOD!



Bede Products, Inc., manufacturers of paint heaters for finishing applications, has been announced by James A. Bede, president. Richard E. Estabrook, formerly general sales manager, is now general manager.

Formerly eastern district manager, Drake had had over 35 years experience in the finishing field. For 25 years he was sales promotion and advertising manager of The Egyptian Lacquer Manufacturing Co.

DWELLING UNITS UP 23.6% DURING PAST DECADE

Reflecting the post-war housing boom, the 1950 population census has recorded the fact that in the United States the number of dwelling units has increased 23.6% since 1940. This compares with a 14.2% increase in population during the same period.

The numerical increase from 37,325,470 in 1940 to 46,151,170 in

1950 was the greatest in any decade, according to Roy V. Peel, Census Director.

STEEL QUOTAS ALSO CUT BY OTHER THAN MILITARY NEEDS

Reasons for cuts in steel quotas for civilian use, other than current Military needs, were given by Jack Smith, Inland Steel's general manager of sales, at the January 10 meeting of the Pressed Metal Institute's Chicago district. Projects having D.O. ratings, and which cut into the steel supply, include: necessary plant construction; steel mill expansion; and maintenance and repair for steel plants, said Smith.

NEW DIRECTOR OF RESEARCH FOR ING-RICH OF INDIANA

Harry W. Afflerbach has been appointed director of research at Ingram-Richardson Manufacturing Company of Indiana, Inc. Afflerbach was graduated from Indiana University with a master's degree in chemistry in 1938, and the same year joined the research staff at Ing-Rich. He served four years in the armed services during World War II and was discharged as a master sergeant in the Signal Corps. The new director of research succeeds Clark Hutchison, who recently resigned.

COWLES CHEMICAL PROMOTION



Cowles Chemical Company, Cleveland, Ohio, announced the promotion of Elmer A. Lord to the position of

sales promotion manager. Lord will be directly in charge of the company's advertising, sales promotion and public relations activities in all

departments. He fills the position held for the past five years by James A. Barnes, who is leaving Cowles to become a trade publication editor.

STEEL WILL MEET THE CHALLENGE

The American steel industry will meet fully the production challenge presented to it as a consequence of the perilous international threat now facing this nation, according to Irv-

ing S. Olds, chairman, United States Steel Corporation. "The industry has the capacity, and the skill, and the will, to produce whatever tonnages of steel may be required for the defense

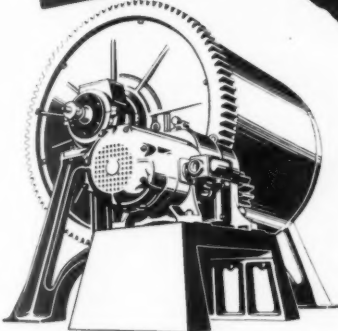
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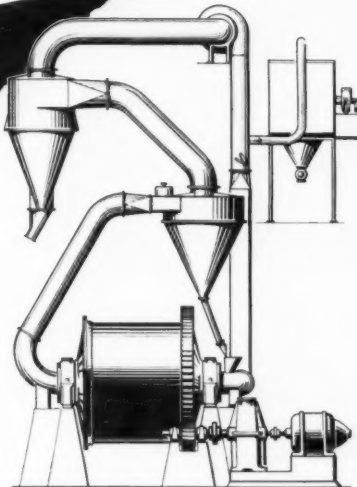
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Richard L. Cowles

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Toronto, Canada
MONTREAL

and military needs of our country", said Olds. "In so doing, some ordinary civilian uses of steel may have to give way to the superior claims of the military, but everyone should concede that this is a necessary corollary of war, or near-war.

"The American steel industry today is building more new capacity more rapidly than ever before in its history, and as long as the need for expansion continues, it is safe to assume that such expansion will be

forthcoming. The members of the industry have placed no limits upon their eventual size.

"As part of an expansion program, construction will be commenced next spring when the site becomes available of a new integrated U.S.S. steel

mill of 1,800,000 tons capacity in Bucks County, Pennsylvania, near Morrisville. Other plans for further increases in steel production are under consideration by United States Steel, and will be made effective as rapidly as required", Olds reported.

THE ALUMINUM OUTLOOK FOR 1951

Aluminum production will climb in 1951 to over 1,600,000,000 pounds, within 10% of the peak year during

World War II, Richard S. Reynolds, Jr., president of Reynolds Metal Company, has predicted. Primary aluminum output has increased so sharply during recent years that the 1951 production will be double 1946. Further expansion of capacity, already agreed upon, will enable the three producers to achieve a rate of 2,200,000,000 pounds a year in 1952, a 50% jump over 1950.

Despite the substantial increase in supply, the total military and civilian demand in 1951 is expected to be still greater. In contrast to the situation prevailing on the eve of World War II, aluminum is now being used for a wide range of civilian uses, including household appliances, protective packaging, construction, and transportation equipment. In the military field, its uses have also spread far beyond aircraft construction as greater emphasis has been put on an air-borne army. Although aircraft is still the largest single military use for aluminum, it is being used for hundreds of other items — from bazooka barrels to pontoon bridges and portable huts. An adequate aluminum supply under conditions of full mobilization will therefore have to include large quantities for military uses other than aircraft and substantial amounts for essential civilian uses, said Reynolds.

as simple as **A·B·C**



These components for the completely enclosed pipe-line type FerroFilter shows its simplicity of design. Simplified design, careful workmanship, and the finest materials are combined in an extremely effective electromagnetic separator that will give you long, trouble-free service.

To get the clean sparkling enamel finishes you want for your finished product, you *must* have clean, iron free enamel slips. Thousands of feet of magnetized edges of the FerroFilter grids form a protective wall against iron contamination.

The pipe-line FerroFilter will fit into your dip tank circulating system, and your mill unloading or liquid transfer systems to give you the protection you need. Gravity type FerroFilters are available for general use where a closed system is not required.

No modern enameling plant can afford to operate without adequate FerroFilter protection. They represent the lowest cost finish insurance you can buy.

Authorized Representatives for the Enameling Industry

Chicago Vitreous Enamel Product Co., 1425 So. 55th Court, Cicero 50, Ill.
Ferro Enamel Corporation, 4150 East 56th Street, Cleveland 5, Ohio

S. G. FRANTZ CO., Inc.

Dept. F P.O. Box 1138
Trenton 6, New Jersey

Report of winter home-furnishings market

→ from Page 31

ing machines, one finished in a metallic blue, the other in a metallic green. A company executive revealed that a red model would also be available to dealers.

Lindemann & Hoverson's exhibit in the American Furniture Mart

arena had the spotlight on a new electric range finished in blue.

Though refrigerator exteriors continued white, three manufacturers showed their products with blue interiors. Admiral and Norge showed new refrigerators with "glacier blue" interior, while Amana Refrigeration displayed their combination refrigerator-freezer also with a blue interior.

International Harvester's new refrigerators have door handles available in a choice of 10 decorative colors to harmonize with the kitchen color scheme. The color is in interchangeable plastic plaques.

Urges color use to offset tension

Dorothy Liebes, designer and colorist, told the Home Fashions League at its semi-annual luncheon that color appeal is emotional rather than solely intellectual. She urged more use of color in the home to provide the needed "compensating beauty" during the present time of tension.

"Red hot in 30 seconds"

Westinghouse added three models to its line of refrigerators that automatically defrost after the door has been opened a certain number of times. It also introduced an electric range with a surface unit that gets "red hot in 30 seconds," and has a two-level speed cooker.

Coolerator's five-foot kitchen

Coolerator displayed along with their large model refrigerators and ranges smaller models that would fit into a five-foot kitchen. The compact kitchen consists of a small apartment range with a 20-inch oven, a 15-inch table top cabinet and a 7½-cubic foot refrigerator.

Florence range

has removable back panel

Florence Stove's new gas range has a backguard which is clip-fastened to permit easy and quick removal when necessary. The range's "water-fall" top, as well as side panels, are also clip-fastened to permit ease of assembly or removal.

Large kitchenette gas range

Cribben and Sexton introduced its new 21-inch wide kitchenette range,

and three new models in the 36-inch gas range line. The kitchenette gas range has a full-sized 17-inch oven and 17-inch broiler.

The outlook for gas appliance production

→ from Page 32

from gas appliance and equipment manufacturers, reports accounting for 82.5% (77 companies) of the reported 1950 unit shipments feel

that 1951 production will be from 10% to 50% below that of 1950. The consensus of these 77 reports is that production will be reduced 24% in 1951.

Reports accounting for 5.3% (53 companies) of the 1950 shipments feel that 1951 volume will be greater. Many of these companies were new to the gas appliance field and it is quite probable that they based their reply upon their own company's expectations rather than what they

NO BOTTLENECK NOW

Production in the paint shop is stepped up . . . no longer limits output of other departments!

FINISHING COSTS CUT

Savings in paint alone are estimated at upwards of 50% . . . in labor, at 60%!

Large and small steel parts for office furniture—desks, filing cabinets, lockers, shelving, partitions—all travel through Ransburg painting unit in Plant No. 4, Office Specialty Manufacturing Co., Ltd., Holland Landing, Ontario, Canada.



● Office Specialty stepped up production and cut finishing costs by switching from slower, hand-spray batch operation to conveyorized, Ransburg Electro-Spray.

Let us tackle your paint problems. Let our engineers estimate the savings available in your case. Possibilities can be checked quickly in our test laboratory.

Electrostatic Painting Processes

RANSBURG ELECTRO-COATING CORP.

.....

Indianapolis 7, Indiana

RANSBURG

thought the entire industry would do. 22 reports, accounting for 12.2% of the reported 1950 shipments, anticipate no change in production volume during 1951.

Control, valve, fittings, etc., manufacturers present a similar line of thinking. Only two of twelve companies feel that 1951 volume will be greater than 1950 while three feel there will be no change. The seven remaining companies (which would account for the greater part of pro-

duction) feel that production will be reduced in 1951 by from 20% to 40%.

1951 advertising and promotion

Of the 152 reports received, 81 accounting for 54% of the 1950 reported shipments contemplate no change in their promotional and advertising activities while 45 reports, or 29% of the 1950 reported shipments intend to increase their promotion and advertising by from 10%

to 100%. Again, many "new" companies are included. The remaining 26 companies (17% of 1950 shipments) will increase these activities by from 15% to 50% from 1950 activities.

Thinking of control, valve, fittings, etc., manufacturers again coincides. Of the twelve reports, five contemplate no change, five will increase promotional and advertising activities by from 5% to 50%, while two will decrease their activities by an unknown percentage.

As previously mentioned, 1951 shapes up as a year of uncertainties. The gas appliance industry, like all other industries, cannot weigh its activities during the coming year because the tempo of the national and world economy has not been set. All industry looks toward 1951 as anything but a "business as usual" year.

In our case, and we are by no means in a unique position as compared with other industries, we enter 1951 with more than double the facilities we commanded in 1941. Thus, as an industry, we are in a position to make double the contributions to the 1951 defense program and at the same time maintain a reasonable production of our essential services.

Home laundry equipment mfrs. meet

→ from Page 26

service parts in the event of sharp reductions in appliance output.

Statistical services maintained for the members were described by C. A. Brewer, chairman of the market research committee and manager of marketing services division of the General Electric Co., Bridgeport, Conn. Training of household appliance service personnel in good customer relations practices was urged by P. A. Welchans, manager, parts and service department, Thor Corp., Chicago, who is chairman of the Association parts and service committee.

"It is a recognized fact that although a great many service-men know the mechanical features of the

THIS perfect combination saves handling time . . . grinding time. You can actually grind up to twice the amount of material!

Handling time with "U.S." Roller-type Jar Mills is held to a minimum. No time lost clamping jars into frames or cumbersome housings. Set the jar on the rolls and let it roll. The jar won't creep, crawl, or fall off; special patented roller design prevents this.

Grinding time with "Borundum" Grinding Media is often cut in half. And you get a better grind . . . free from contamination. It takes hardness and weight to make a good grinding media. "Borundum" has both—fifty per cent harder than porcelain balls, seventy-five to eighty per cent heavier. And tough! Their "wear-off" is microscopically slow.

The most delicate pastel colors can be ground with complete safety with "Borundum." Their exceptional density (practically zero-porosity) resists color staining. They wash easily and quickly, save time.

Not only is "Borundum" the ideal companion for "U.S." Roller-type Jar Mills—it's the ideal grinding media for all ball mill grinding.

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MORE

Write today for Free New Bulletin 265.
Address: Process Equipment Division, Dept. C1.



U. S. STONEWARE
Akron 9, Ohio

32C

appliances, their approach to the customer leaves much to be desired.

"After a sale, the service-man often is the only representative of the dealer and, therefore, of the manufacturer, who enters a customer's home. We feel that it is extremely important that he be as fully trained as possible, not only in the mechanical features of his appliance, but also in the proper approach to the customer," said Welchans.

Problems of shipping damage to household washers, dryers and ironers are gradually being simplified and reduced by certification of the appliance producers under the National Safe Transit Program for pre-shipment testing of packaged appliances, R. H. Thompson, traffic manager of The Maytag Company, reported.

Speaking as chairman of the Association's traffic committee, Thompson said that particular attention is being given the designing of a suitable container for porcelain enameled washer tubs.

New chairmen for associates group

Harry C. Kunkelman, sales manager of Bliss & Laughlin, Inc., Harvey, Ill., retiring chairman of the Associates committee, representing fifty suppliers to the industry, named John Goodwillie, assistant vice-president, Dole Valve Co., Chicago, to be his successor and George W. Green, manager, manufacturers' sales, B. F. Goodrich Company, Chicago, as vice-chairman.

New associate members are the Colgate-Palmolive-Peet Co., Jersey City, N. J., and the Soreng Manufacturing Co., Schiller Park, Ill.

Tribute to Association members who died in 1950 was paid in a special address by Roy A. Bradt, vice-president, the Maytag Co., Newton, Iowa, a former president of the organization. Those eulogized were Herbert Forsberg, Geuder, Paeschke & Frey, Milwaukee; Harold J. Deutsch, Monarch Aluminum Mfg. Co., Cleveland; Norman L. Woods, Hamilton Mfg. Co., Two Rivers, Wis.; Harlow K. Lyons, director of distribution, Bendix Home Appliances, Inc., South Bend, Ind.; Vernon

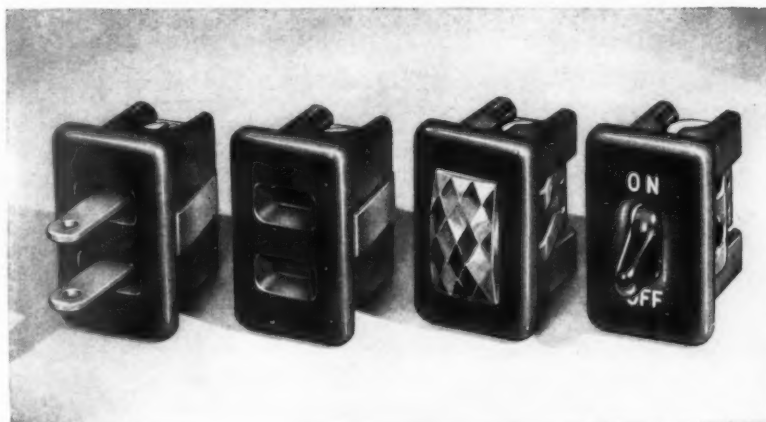
Dunn, president, Appliance Mfg. Co., Alliance, Ohio, and W. Neal Gallagher, president, Automatic Washer Co., Newton, Iowa, three-term head of the Association including a period in World War II, and also wartime secretary of AHLMA.

Because of the international situation, the summer meeting of the American Home Laundry Manufacturers Association, staged in the past few years as a two or three-day affair, will be limited to one day, June 16,

in 1951, it was announced. The Associate members traditionally sponsor the social features of the summer session which will be held in the Chicago area this year.

1950 BIGGEST PHILCO YEAR

Philco Corporation completed the biggest year in its history, with total sales of approximately \$335,000,000. William Balderston, president, an-



For Faster Assembly, Tops in Looks and Action

Use "Diamond H" Snap-Ins In Your Products, Too

Manufacturers of scores of electrically controlled or operated products, from hot plates and stoves to dictating machines and test panels, use "Diamond H" Snap-Ins to save costs on their assembly lines and assure the utmost in appearance and performance in their products.

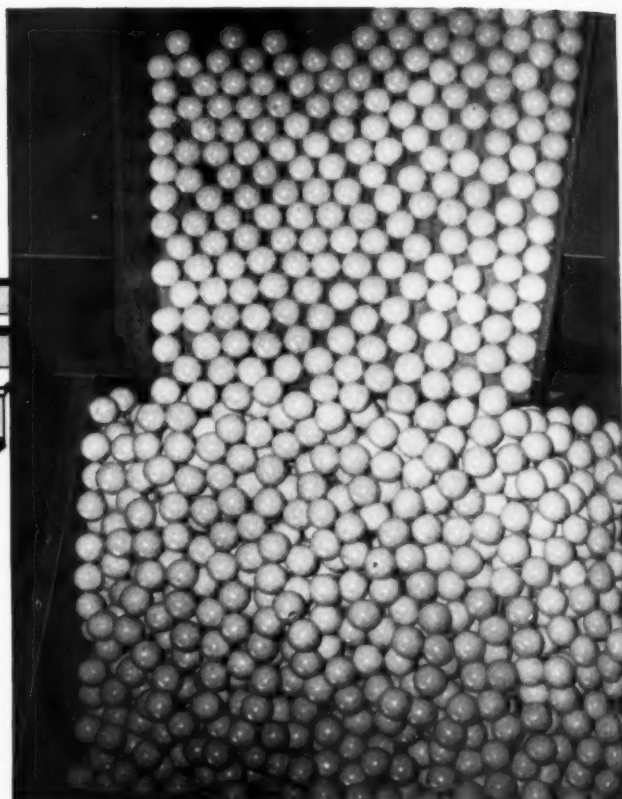
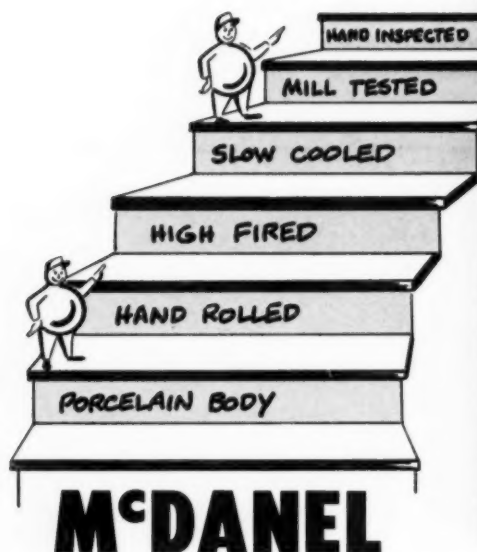
Toggle switches, convenience outlets, pilot lights and inter-connecting load plugs just snap into 21/32" x 1-7/32" holes where spring clips hold them tight. Wire them up before or after. In black, white, brown or special color plastic to match or harmonize with your product.

- **Wide Flanges** eliminate need for exacting tolerances in finishing around installation holes.
- **Switch Contacts** are held together under pressure of spring action in "on" position to give positive, *unfailing* action. Ratings: 15 and 20 A, 125 V; 10 A, 250 V, A. C. Also H. P. ratings.
- **Pilots**, with large, faceted lenses, give greatest light output of any comparable pilots on the market. Rated 115 V. or 230 V., A. C.
- **Convenience Outlets** and **Inter-Connecting Load Plugs**, like all "Diamond H" products, are ruggedly built for long service.

Write today for complete details on how "Diamond H" Snap-Ins will help you make a better product at lower cost.

THE HART MANUFACTURING COMPANY
214 Bartholomew Ave., Hartford, Conn.

These Six Steps Keep M^cDANEL Balls on Top...



For long wear and efficient grinding McDanel Grinding Balls have always been tops. The utmost care and quality goes into their manufacture.

From a porcelain body specially developed by McDanel to give maximum impact and wear resistance, each ball is rolled by hand to give more grinding surface. Each ball is high fired to bring complete vitrification and slowly cooled to prevent any strains being set up that might later cause cracking or chipping.

The balls are then rigidly tested in an uncushioned mill and individually inspected before shipment. You can be sure of highest quality and performance when you specify McDanel.

Write Today for 1951 Catalog
for full data on
McDanel Porcelain Products

• HAND ROLLED GRINDING BALLS

Made from specially developed vitreous porcelain body and hand rolled for faster, uniform grinding. Mill tested and individually inspected before shipment to you.

• MILL LINING BRICK

Low in glass content, McDanel Mill Lining Brick gives maximum resistance to wear and long, satisfactory service. Complete size range to fit every size mill.

• MILL HEAD ASSEMBLIES

Be sure to specify McDanel Mill Head Assemblies on your new mills. No metal can contaminate your mill charge with these patented covers. They are tops for uniformity of batch and long service.

• METAL COVERED GRINDING JARS AND MILLS

Protected with heavy gage steel jacket McDanel Metal Covered Grinding Jars and Mills are easy to handle, easy to clean, discharge rapidly and stand up under long usage.

West Coast Representative

Fernholtz Machinery Company, 150 N. Norton Ave., Los Angeles, Calif.

McDANEL

McDANEL REFRACTORY PORCELAIN CO.
BEAVER FALLS, PENNA.

CHICAGO VITREOUS ENAMEL PRODUCT CO., Cicero, Illinois. Exclusive representative for the Enamel Industry

nounced to the company distributors at a meeting at the Palmer House, Chicago, in early January.

Electric refrigerators and other products of the Philco appliance division, which today represents a larger volume than that of the entire company in 1941, showed the second largest gain, with television the leader, showing sales 300% as great as in 1949. Especially striking progress was made in electric ranges in 1950, the first year the Philco range was made and sold, according to Balderston.

"While the Government is developing its defense program and placing orders with manufacturers, it is vital

that civilian production be kept going so that the facilities and experienced organization in each industry will be there when needed to carry out their defense assignment", Balderston stated. "At the peak of the defense program, as it now appears, the overall output of the electronics industry will substantially exceed the 1950 peacetime total of about \$2 billion. Philco Corporation is prepared to play an even more important part in this defense program than in World War II, when our company was one of the largest producers of airborne radar equipment, proximity fuses and essential ordnance materiel for the armed forces."

Production of porcelain enameled cast iron plumbing fixtures

(Continued from Page 21)

inspection stand. Products then move along conveyors for "bond" coating.

Grip coat is sprayed

"Bond" or "grip" coating is done with what is commonly known as a soft slush enamel, sprayed on the casting that has been slightly warmed to aid in coat drying and adherence. The coat is thin and when dry is in the form of a very fine adhering powder and should cover the entire casting that is to be enameled so as to provide a good smooth finished piece of porcelain enameled ware. This ground coat also prevents rusting, and aids the porcelain in fusing to the iron.

Dry process frit smelting

We might state here that the Chattanooga plant manufactures all its own enamel from carefully selected and integrated raw materials. Among the refractories, fluxes and opacifiers used are feldspar, fluorspar and tin oxide. Ingredients are weighed and batched, mixed, and then put in porcelain-lined tumbling mills containing porcelain balls for further mixing and grinding. Completely blended, the batch is taken to the smelter room and charged by screw conveyor into the smelter—a long, horizontal drum lined with refractory material.

Smelters heat the materials to about 2100° F., and process them for about

three hours. The molten mass is then discharged into cold water, which carries the enamel into a box lined with stainless steel.

Water is drained from these boxes and the frit placed in driers. A drier very much resembles a smelter, although longer and of course not brought to such a high temperature, being about 300° F. Dry frit is then put into ball mills and ground into the fine powder used to sift onto castings for the final enameling process.

Dry process enameling

This final enameling is the big, different step, as compared to the porcelain enameling of formed metal where the enamel coating is sprayed on the pressed steel forms of one kind or another. At Chattanooga, the castings with their ground coat are placed in preheating furnaces or ovens that are fired to temperatures of between 1600° and 1760° F. Long forking equipment, manipulated by one or two men, withdraws the red hot casting from the furnace after the ground coat has sufficiently heated and is thoroughly fused with the iron.

The heated casting is placed on a revolving table which can be tilted at any angle or revolved completely for the convenience of the enameler, and is automatically controlled with a foot mechanism operated by the

enameler, a highly skilled workman. He sifts the fine porcelain enamel powder onto the hot casting, as he manipulates it around on the positioner. After the first sifting or coating, the casting may be fired once or twice more, depending upon the need according to the judgment of the enameler.

Essentially, an enameler tries to get a one-sixteenth-inch coating of porcelain enamel on a casting, regardless of the number of siftings required.

After cooling, the ware is carefully inspected for blemishes, such as pin holes, blisters, dirt and rough coating; straightness of edges and trueness to pattern are checked; finally, openings are gauged to insure proper fitting of fixtures which, in some cases, are put on the ware before it leaves the plant.

Careful attention to packaging

The shipping department is entrusted with taking care that all this work doesn't go for naught—proper packaging of ware is of prime importance to protect the fine porcelain enamel against damage during shipment and handling. Specially designed crates are needed. Sections of the crates, or "half shells", as they are called, receive the ware first. Enameled ware is "turned into" the shells as soon as possible in the enameling room to expedite handling from then on. The ware then moves to the shipping department for final crating, and attachment of banding iron as required. Furthermore, each type of ware gets prescribed handling and loading in freight cars or trucks, with bracing and strapping to reduce the possibility of damage en route. (See "How to Handle Enameled Cast Iron Plumbing Fixtures," Page 79, July, 1950, finish.)

Both regular and acid-resistant porcelain enamel are applied at Chattanooga, depending upon the sanitary ware's use. Homemakers are given the choice of regular or acid-resisting white; and eight attractive pastel shades—sun tan, pale jade, sky blue, shell pink, India ivory, citrus yellow, French grey and Persian red, all in acid-resisting enamel.

NEW BENEFITS FROM TITANIUM DIOXIDE THROUGH TITANOX RESEARCH:



Stretch Critical Materials

**BY CUTTING PRODUCTION
REJECTS AND SHIPPING
DAMAGE ON ENAMELLED
PRODUCTS**

■ In times of shortages, you naturally are more concerned than ever with producing and delivering the greatest number of products with the least possible waste of quality materials. TITANOX-TG helps you lick this problem—and assures you a better finished product at the same time.

Tough, flexible, single-coat *modern* titania enamels have been made possible through the use of TITANOX-TG and its companion product TG-400 for blue-white enamels. Frits formulated with these titanium dioxides, specially produced for the ceramic industry, make porcelain enamels of unsurpassed color uniformity and shock-resistance. Extensive production experience has shown that enamels made from these frits have cut the rejection rate on enameled products in plant after plant and

have appreciably reduced damage during handling and shipping.

Our Technical Service Department is always available to help you solve your individual problems. Titanium Pigment Corporation, 111 Broadway, New York 6, N. Y.; Boston 6; Chicago 3; Cleveland 1; Los Angeles 22; Philadelphia 3; Pittsburgh 12; Portland 9, Ore.; San Francisco 7. In Canada: Canadian Titanium Pigments, Ltd., Montreal 2, and Toronto 1.


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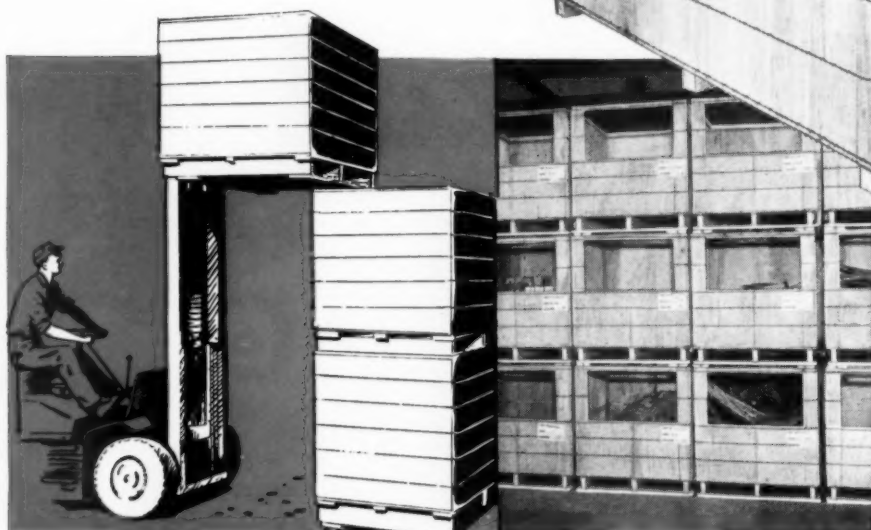
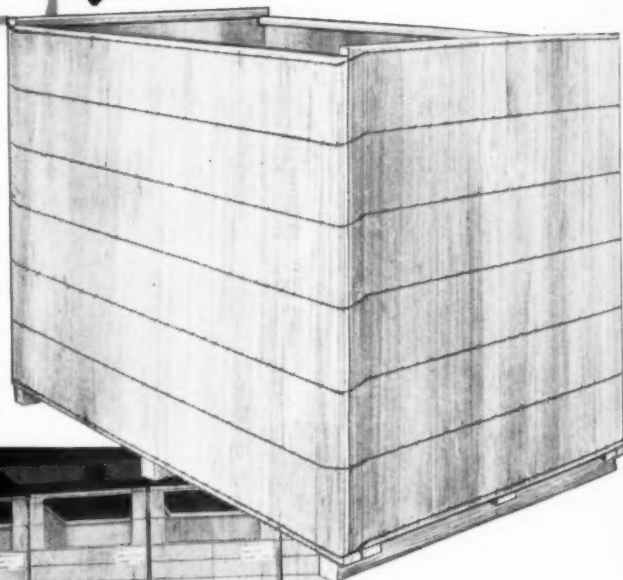
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**THE ANSWER TO
MATERIALS HANDLING
PROBLEMS...**



**...AND THE
ANSWER TO
STORAGE
PROBLEMS**

**FOR LARGE BUSINESS
FOR SMALL BUSINESS
FOR ALL BUSINESS!**

The Generalift Pallet Box is new... it has had a truly amazing acceptance among practically all types of manufacturers! It sharply reduces costs because *one* workman, fork-lift truck, and Generalift Pallet Box, do the work of many! If you are interested in sharply cutting your materials handling and storage costs, write today for complete information on this versatile container.

WE WILL MAIL FREE COPY OF "THE GENERAL BOX"

This colorful booklet illustrates and describes the many advantages of the Generalift Pallet Box. We will be glad to mail upon request.



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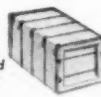
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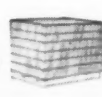
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safe transit

A monthly trade publication section devoted to improved packaging and shipping and materials handling practices in the home appliance and allied metal products field.

Plant experience information for all executives and plant men interested in the problem of packaging and shipping improvement and loss prevention.

Complete information on the National Safe Transit pre-shipment testing program for packaged finished products, and detailed progress reports of divisions and sub-committees of the National Safe Transit Committee.

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DESIGNATE WEEK OF APRIL 16 AS

"PACKAGING WEEK" 68

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DANA CHASE PUBLICATIONS

PRINTED IN U.S.A.



Above: Photo-electric cells located at the hump in this triple-deck conveyor in the Westinghouse warehouse in Trenton, N.J., not only count the cartons carried on each belt, but automatically stop the belt if beam of light is interrupted longer than 30 seconds. This prevents damage to cartons should a jam-up occur on any of the three belts.

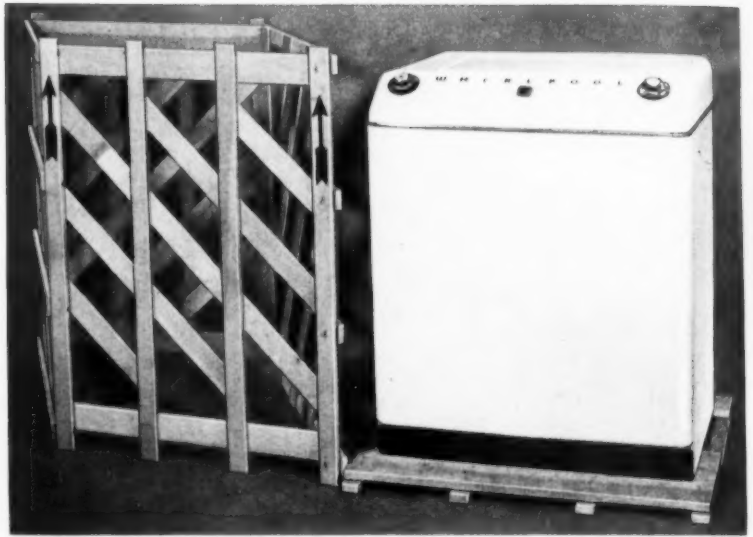
Below: A complete Coleman Blend-Air system for a 5 or 6 room house is fully packaged and ready for delivery. Large crate contains the furnace; smaller packages contain the complete air distributing system.



WASHING MACHINE CRATES THAT CARRY PRODUCTS...

Safety

TIGHT CORNER HINGED CRATES



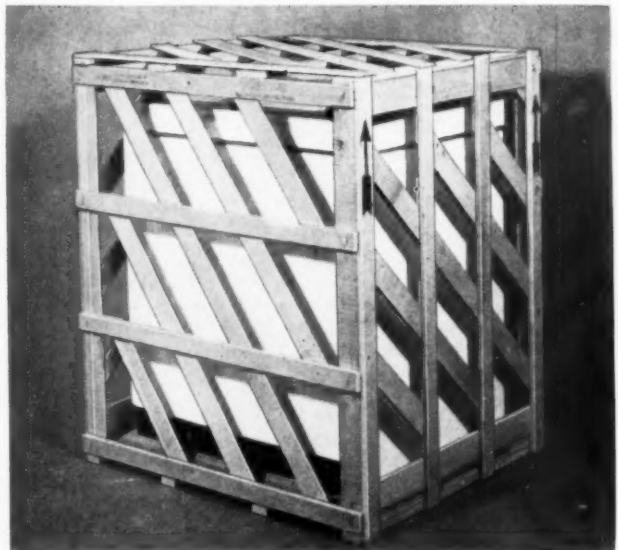
Above: The "Tight Corner" Hinged Crate for a Whirlpool automatic washing machine. Below: The crated product, ready for safe shipment.

Manufacturers of washing machines, ironers and dryers find that the Bigelow-Garvey "Tight Corner" Hinged Crate affords assured protection for these valuable home laundry products, so important now when both materials and finished products are in short supply.

The bracing strength and rigidity of the exclusive corner design make it possible for this Hinged Crate to withstand shocks, stresses and abuse that would be disastrous for the ordinary type of collapsible crate.

For washing machines or any household appliance the "Tight Corner" design offers that important extra assurance of safe arrival at destination.

We offer a complete line of shipping crates—both open and closed—domestic and export—and our engineers will design a crate to meet each specific need.



Write us regarding your shipping problems.

BIGELOW-GARVEY LUMBER COMPANY

General Office and Laboratory

320 West Huron Street, Chicago 10, Ill.

MILLS: ARKANSAS GEORGIA WISCONSIN MINNESOTA ILLINOIS

A pre-shipment testing program that works

how the Safe Transit testing program helped to solve our packaging problems

by *W. F. Hagman* • CHIEF ENGINEER, GLOBE AMERICAN CORP., KOKOMO, INDIANA



When we resumed civilian production after World War II, we introduced a newly designed gas range.

After this range was completely tooled and put in production, one of the first problems that we encountered was shipping damage. When our range was designed we realized that the shipping of the range would present some problems, but these problems were solved by the old method of inspecting the part in question, with either of the following two verdicts: "Yes, it looks all right for shipping," or "The part looks weak,

you'd better 'beef it up' because of shipping."

As soon as we started shipping our ranges, shipping damage reports started coming in. One of the things we did was to change our crate, which we thought was at fault. In order to make this change quickly, we scrapped a considerable number of our old crates. Later, however, we found that our original crate design was satisfactory, and that the cause of the trouble was in the design of the range.

The time lag problem in field damage reports

After we had had a little more experience with this newly designed

range, we introduced a method of reporting shipping damage so that we could pin down the sources of trouble. This method was a big improvement, but was not 100% satisfactory because of the time lag, and it was hard to get complete field reports. The time lag in this method was very serious, as it would take at least 2½ months from the time that troublesome parts were made until difficulties were reported back to us and corrected. This meant that there was at least 2½ months' production of these parts in the field producing shipping claims.

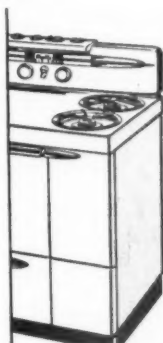
Now that we are testing under the National Safe Transit Program, we

When a dealer discovers any damage on a range he has received, he fills in this field damage report and sends it to the company's traffic department. Dealers also have instructions for identifying damage on specific parts.

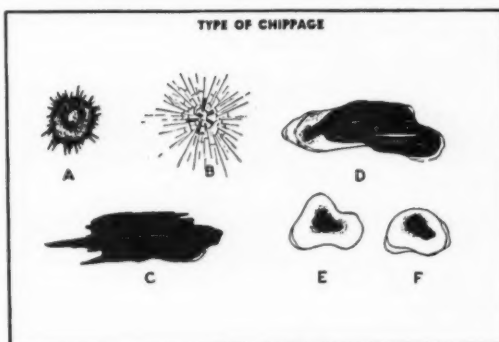
(FOR 6000 SERIES RANGES ONLY)



Left Side and Front Sections



Right Side Section



INSTRUCTIONS

This report is designed to help you, by aiding the Engineering Department to correct causes of enamel chippage in transit. In the preparation of this report, please be specific. Indicate on the range illustration the exact spot where chippage occurs (see examples on opposite side).

50015-K24-M

Dealer's Name		City		State	
Car Initials and Number		Date Received		Route	
Name of Transportation Company Over Which Received					
Serial Numbers					
Types of Chippage					
Condition of Crates					
Remarks					

Carload ☐
Less Carload ☐

have no more than a few days' production of any such parts before the difficulty is corrected.

How we use the testing program

When the National Safe Transit Committee was first organized, we followed the published information very closely because we felt the need of some standard method of testing. As soon as the NST Committee made its recommendations, we installed the

recommended equipment. We soon found that the program reduced our percentage of damage reports substantially. We are following the Safe Transit Program 100%, even in connection with the design of our repair parts packaging.

We had a peculiar problem in our repair parts packaging that was solved by this pre-shipment testing program. Tops were being returned to us because of chippage in a par-

ticular place, which appeared to be due to structural weakness. Upon investigating this problem, however, we found that the structural weakness did not produce this chippage when the part was assembled on the range. We found the cause of the trouble was in the repair parts packaging. The tops that were being returned to us were not actually being removed from the range, but were repair parts that had arrived at the dealer's floor with these chips already on them. If we had not at that time been checking our repair parts packaging, I am sure that the cause of this trouble would still be undiscovered.

The carriers approve

We found that the carriers, in particular the railroads, indicated an enthusiastic attitude when advised of our participation in the program. We have pointed out to every one of the carriers, whose representatives have called on us, that we are part of the NST program, that we are living up to its standards, and that we will continue conducting the full testing program within our plant.

We find that the claim adjusters of the carriers are inclined to be more reasonable since we have actually joined in the program of the National Safe Transit Committee.

Claims almost non-existent

Our dealings with our sales outlet, The Maytag Company, with respect to transit damage have diminished to a point where claims are actually almost non-existent.

The use of the ride recorder has put us in a position to recognize unduly rough handling when it is encountered.

A good customer relations feature

We are quite proud of having the National Safe Transit testing equipment in our plant, and it is one of the features of the plant which we demonstrate when dealers or other people are visiting us.

This equipment demonstration has been of the utmost value to us, because it shows the dealers and customers that we are concerned about the condition of the ranges when they receive them. Not only does this

FIBER-and-STEEL STRAP CUSHIONS AS IT BINDS



For Internal
Bracing

•
Prevents
Shipping
Damage

•
Cuts
Shipping
Costs

FIBER-and-STEEL is steel strap with a cushion of protective Kraft paper around it. You can apply FIBER-and-STEEL directly on the enameled surfaces of stoves, refrigerators and other similar products with *no cushioning needed* between the product and the strap. The outer layers of Kraft paper protect the surface. The inner layer of steel strap binds with a slip-proof grip.

FIBER-and-STEEL saves time and materials in packing, makes uncrating easy, and leaves no adhesive stains. It is secured with a soft aluminum Gerrard seal.

WRITE OR WIRE TODAY
FOR A TEST DEMONSTRATION
IN YOUR PLANT



1958 Hawthorne Place, Melrose Park, Ill.
(Chicago Suburb)



Strap calculator.
Write for
your free copy.

make a favorable impression on our visitors, but we ourselves get a great deal of satisfaction from knowing that we are successful in overcoming a very difficult and annoying problem, and we also have a sense of satisfaction in a "Job Well Done."

Letter reveals transportation conditions in Australia

An interesting letter was received recently by the National Safe Transit Committee from Electricity Meter & Allied Industries, Ltd., of Waterloo, New South Wales. For those who feel that we have shipping problems in the States for our appliances and other finished metal products, we publish a short excerpt from the letter.

"The E.M.A.I.L. Organisation includes three Companies with Continuous Enamelling Furnaces producing food compartment liners for refrigerators plus the other associated enamelled parts, porcelain enamelled gas and electric ranges and porcelain enamelled sink heaters, bath heaters and many other household appliances.

"Transport conditions in Australia are very rough indeed and transport damage is one of the biggest single factors that we have to contend with. One factory that we have is situated 170 miles from the capital city and the goods have to be transported by slow goods train which stops at many stations and sometimes drops the particular waggon off and leaves it there for a day or two, when it is picked up and transported slowly to the capital city. Here the goods are then taken off by a carrier to a bulk store awaiting rail transport to some other part of Australia, or perhaps transported by boat to a faraway capital city. Here again, the same procedure is repeated—the goods are picked up by road carrier and taken to a central store where they are either opened up and delivered to the customer if in good order and condition, or alternatively, re-diverted by train to some outback country town."

And — we think we have troubles!

50 YEARS OF BETTER BOXES — "THE American WAY"



Porcelain ware packed in American Wirebound Crates save money for this customer.

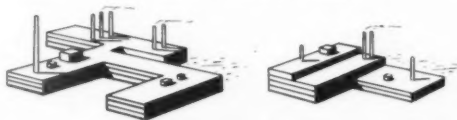
Here's Super-Protection for Shipping Your Sanitary Ware and Appliances!

You can't count your profits until your products are delivered — intact, undamaged! That's why American box engineers and technicians have devoted half a century to the development of improved boxes and crates which do a better job for you, at lower cost.

Today, you are getting the accumulated benefits of those 50 years of progress in every American shipping container you use. You get extra protection for fine finishes — you get extra support for resisting shocks and stresses. You get the all 'round best that money can buy — for less, thanks to economies of American's modern manufacturing efficiency. Are you getting the most for your shipping dollar? Check with American today — and see for yourself.

TWO GREAT PLANTS (Est. 1901)

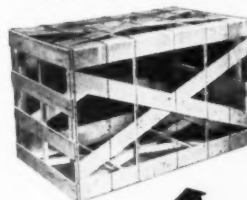
Centrally located in Cleveland, Ohio, and Marion, South Carolina; featuring most complete modern facilities for serving American industry.



THE American BOX CO.

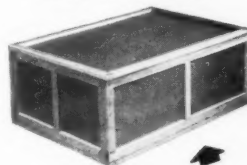
1902 W. 3RD ST.
CLEVELAND 13, OHIO

MARION,
SOUTH CAROLINA



WIREBOUND CRATE

Strength-tested, lightweight. Built-in support features. Easy handling, stacks well. Supplied flat for wrap-around assembly.



FIBREBOARD BOX

Attractive, low-cost. Fully enclosed, panels steel stapled to wood cleats. Superior reinforcements. Supplied flat for easy assembly.



NAILED WOOD BOX

Materials and workmanship to meet or surpass Government Specifications for domestic or export shipments.

7,000,000 Safe Transit labels used in 1950

acceptance of NST label illustrates progress of cooperative program for reducing packaging and shipping losses

by *John C. Oliver* • SECRETARIAL DIVISION, NATIONAL SAFE TRANSIT COMMITTEE, WASHINGTON, D.C.

MORE than 7,000,000 red and yellow National Safe Transit Committee labels were used by companies certified under the NST program during 1950. 7,000,000 packaged products (refrigerators, stoves, heaters, washing machines, and other home appliances and allied metal products) were identified with this label prior to shipment. 7,000,000 labels aided in promoting better handling in transit for the products to which they were affixed, and announced to distributors and dealers that the manufacturers are doing everything possible to assure safe delivery.

The volume of labels used during the past year illustrates the enthusiastic acceptance and support of the whole NST program and particularly of the labeling phase. Almost in-

evitably the first action of a company following the receipt of its Safe Transit certificate is to arrange to use the labels on its packaged units that pass the prescribed pre-shipment tests. Reports of the positive benefits of the label come into the National Safe Transit Committee office regularly.

Promotes better handling

The Safe Transit label helps assure better handling of the packaged unit by transportation and handling personnel. Its attention-getting red and yellow color attracts the notice of loaders and transit men. The label itself points out that the packaged product has been tested prior to shipment, and it should arrive undamaged with normal handling. Product manufacturers, dealers and distributors, and carrier representatives all agree that better treatment of the packaged unit results when the NST label identifies the shipment.

Goodwill builder for manufacturers

The use of the distinctive label indicates to all who see the packaged unit in transit that the manufacturer is truly interested in its safe arrival. At once the label identifies the shipper as one who is doing everything possible to assure the delivery of a product in first class condition to the distributor or dealer and to the ultimate purchaser. Since it bears the NST label, one knows the packaged unit meets all the pre-shipment tests of the National Safe Transit Program, and that the latest test methods are being used to be certain that an undamaged product is received.

Many alert sales and promotion

executives whose companies are certified under the NST program have taken advantage of this certification



JOHN OLIVER

to build good will with their sales outlets. The companies have featured Safe Transit in company house organs and in releases and letters from company officials. Supplies of booklets on the National Safe Transit Program have been obtained from the Committee. (Two booklets, "National Safe Transit Program" and "Safe Transit—A Must for Home Appliances", are available in quantity from the National Safe Transit Committee's Washington office at 15 cents each.) These informative booklets are being sent to company dealers and distributors along with a bulletin or letter tying-in manufacturer participation in this nation-wide program. This evidence of interest by the manufacturer in the dealer's problem is worth many dollars, according to reports from a number of

to Page 64 →

**PRE-TESTED
SAFE TRANSIT
SHIPMENT**

This PACKAGED PRODUCT meets the pre-testing standards established by the National Safe Transit Committee and will withstand ORDINARY transportation and handling hazards.

NATIONAL
SAFE TRANSIT
COMMITTEE

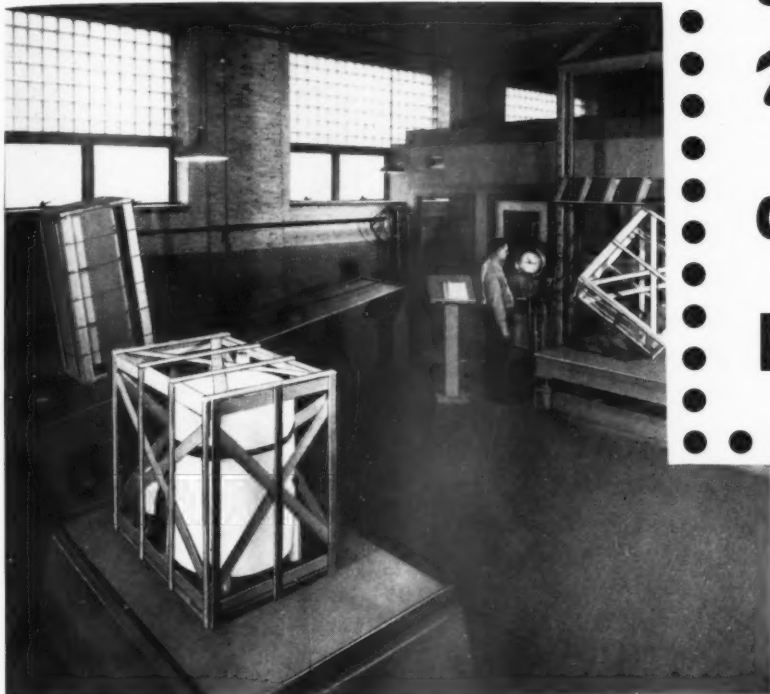


SAFE SHIPPING

1010 VERMONT AVE. N. W.
WASHINGTON 3
D. C.

**MAKE
SAFE HANDLING
YOUR JOB!**

● Section of the Chicago Mill and Lumber Company Testing Laboratory. This Laboratory is certified by the National Safe Transit Committee.



**A proving
ground for
Your
crated
product!**

SENDING your crated product through the Chicago Mill and Lumber Company Laboratory is like taking out an insurance policy for safe delivery.

Experienced engineers and crate designers use the latest in testing equipment to search for weaknesses that may result in transit damage to your valuable finished products.

Assurance of safe arrival will result from pre-shipment testing in our certified laboratory. Avail yourself of this service.

Chicago Mill has the most diversified line of boxes and crates in the country. The most adaptable and economical will always be recommended.

CHICAGO MILL AND LUMBER COMPANY

33 South Clark Street

Chicago 3, Illinois

Plants at: Helena, Arkansas • Greenville, Mississippi • Rockmart, Georgia
Tallulah, Louisiana • South Fork, Colorado • Chicago, Illinois

LET THE SAFE TRANSIT LABEL HELP YOU!

Here's How

1. Write for complete information on the National Safe Transit Program.
2. Arrange for testing of your packaged products in accordance with approved Safe Transit Test Procedures. (Testing can be done on your own equipment, or by an approved Safe Transit laboratory.)
3. Make application for certification.
4. As soon as you are certified, obtain labels from the National Safe Transit Committee and begin to use them on your packaged units.

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firms who have emphasized their participation to sales outlets.

At the same time, actual transit loss was noticeably reduced for many companies following the installation of Safe Transit Test Procedures. No one knows better than the dealers, who have battled for claim payments on damaged goods, what reduced in-transit losses can mean. The Safe Transit label is evidence of what is being done to keep shipping damages at an acceptable minimum.

Label can be used

by all certified companies

The benefits of using the Safe Transit label are available to any company within the home appliance and allied metal products field that has been certified under this cooperative program to reduce damage loss in transit. Any Safe Transit-

certified company can immediately obtain a supply of the labels and begin to affix them to their packaged products which meet the requirements of the Safe Transit Test Procedures.

Labels are available to certified manufacturers from the National Safe Transit Committee, 1010 Vermont Avenue N.W., Washington 5, D. C., at prices based on large quantity purchases.

Investigate Safe Transit

for your company

If your company is not yet certified, you are urged to write to the Washington office for the latest information on the National Safe Transit Program. Complete details on the Testing Procedures will be sent, together with information on the uniform requirements for certification.

Clip and Mail This Coupon Today!

National Safe Transit Committee
c/o FINISH Magazine
360 N. Michigan Ave.
Chicago 1, Illinois

Gentlemen: Please send, without obligation to us, complete information on the N. S. T. cooperative program for reducing packaging and shipping losses.

Name _____

Company _____

Address _____

GEORGE WALNE DIES

George T. Walne, vice president of General Box Company, died January 2 while enroute to his home in Louisville. He was 46 years old.

Practically all of his career was spent in the packaging field, and he



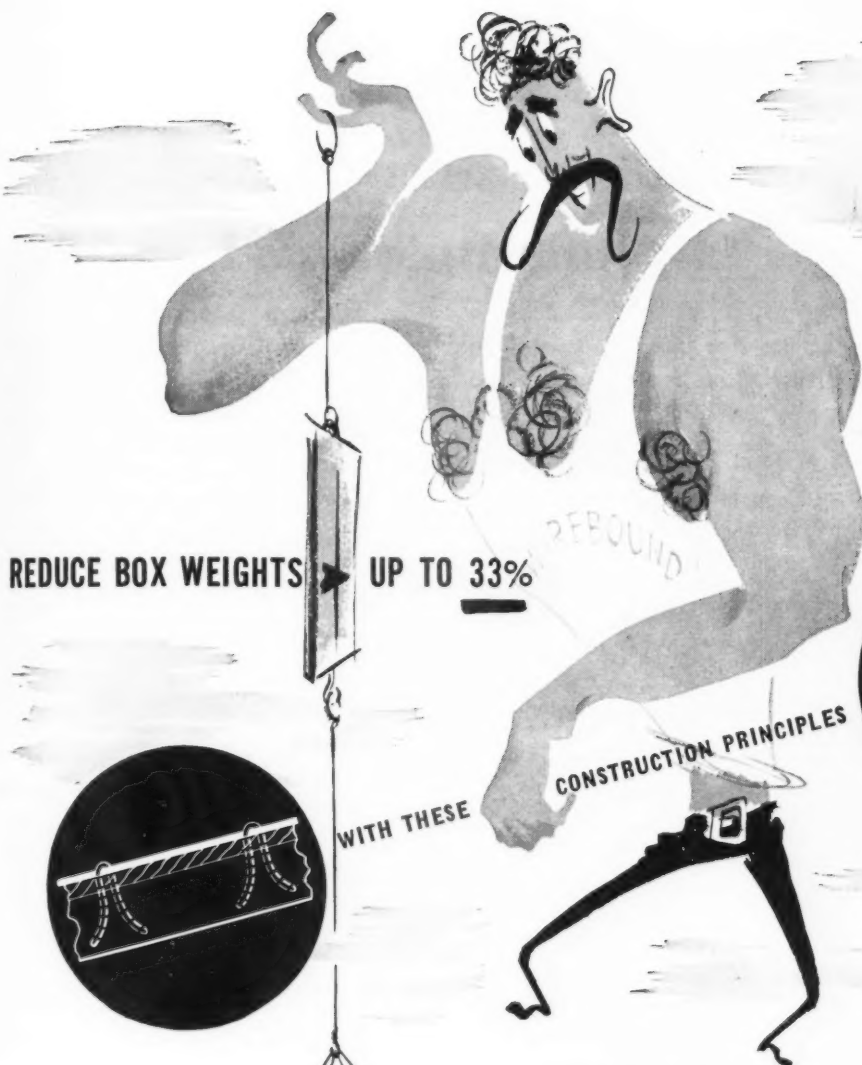
had long been known as an outstanding authority on shipping containers. Following his graduation from Tulane University in 1926 with a B.A. degree in business administration, he joined the company's sales force in New Orleans. After successive advancements, he was promoted and sent to Brooklyn as a salesman, and then to Winchendon, Mass., as a representative in the New England territory.

Walne left General Box briefly in the early 1930's and served as general manager for a corrugated box company in Chicago. In 1939 he returned as sales representative in the Chicago office. He was later responsible for advertising and sales promotion management. In 1946 he was appointed district sales manager and in March, 1949, was elected vice president. In 1950 he assumed full responsibility for sales in the combined Louisville and central territories.

CARLOADING, BRACING SHORT COURSE AT TEMPLE U. IN MARCH

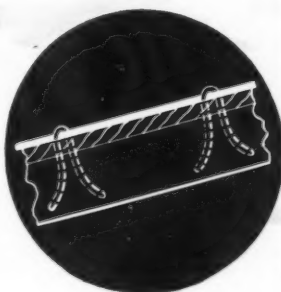
The following short courses, designed for both packaging and materials handling industrial personnel in the Philadelphia area, are avail-

to Page 68 →



REDUCE BOX WEIGHTS UP TO 33%

WITH THESE CONSTRUCTION PRINCIPLES



UPPER LEFT

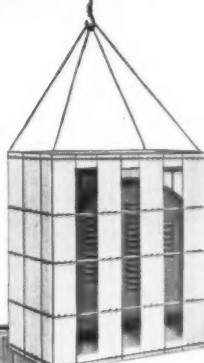
Wirebound staples are driven in cleats in such a way that the ends flare after entering the wood—increasing resistance to pull-out.

UPPER RIGHT

Cleats are mitered or tongue and groove, depending on product shipping conditions. Accurately cut and augmented with wire binding, they produce tight joints to stand maximum abuse.

BELOW

Typical of the Wirebound weight reductions achieved for the boiler company is this 29½ lb. crate which replaced the 75 lb. box shown below.



Like so many other manufacturers, a well known manufacturer of heating equipment* found that Wirebound Boxes and Crates brought savings obtainable with no other shipping container! Box weights were reduced 33%; over-all shipping room savings were 25%; storage requirements were slashed 80%; container assembly and packing time were cut 50%.

Wirebound's unique construction principles will enable you to obtain similar benefits. Specifically designed for the product it is to carry, each Wirebound is composed of high tensile steel wires stitched to thinner wood for face material. Thickness of boards, arrangement of reinforcing battens and number and gauge of wires vary in accordance with the type and weight of contents.

This is only part of the Wirebound story . . . to learn all the advantages of Wirebounds use the coupon at right to request a copy of the free Technical Data Book or have a Wirebound sales engineer call to study your problems.

WIREBOUND BOX MFRS. ASS'N.

Room 1154, 327 So. La Salle, Chicago 4, Ill.

☐ **SEND COMPLETE LITERATURE**

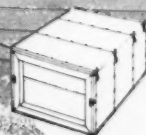
☐ **SEND A SALES ENGINEER**

NAME _____
 POSITION _____
 FIRM NAME _____
 ADDRESS _____
 CITY _____ ZONE _____ STATE _____
 PRODUCT _____

60 WIREBOUND PLANTS THROUGHOUT THE UNITED STATES

*Name on request

**Wirebound
BOXES & CRATES**



Use of two-way radio speeds in-plant materials handling

radio controlled electric trucks are used to speed mechanized handling and eliminate deadheading—a system that may prove helpful to manufacturers of metal products

USE of two-way radio as an aid to mechanized materials handling is saving American industry thousands of dollars this year, and

will save millions in years to come, according to its exponents.

The new technique accomplishes two purposes: it keeps industrial

trucks busy carrying payloads, instead of wasting time deadheading; and it moves them to busy spots where they are needed without a wasted minute.

One firm putting the idea to work is Johnson & Johnson Co., whose new shipping center, at Metuchen, N. J., already has been hailed as one of the finest examples of modern handling yet devised. It is in the same structure that two-way radio is establishing new and happy returns.

The J & J operation involves receiving goods from its production plants, moving them to reserve areas, or the order picking floor, and to loading docks for shipment to customers. Rail and highway transportation is used.

Internal handling, except for a dragline operating in the order picking area, is by a fleet of seven electric fork trucks with 2000-pound capacity each.

How the system works

Here's how the operation was set up by Bob Bradley, foreman, and Bill Conover, industrial engineer:

Two-way short wave radio sets were installed on each of the electric trucks. They are placed to the right of the driver's seat, and are easily accessible. All sets, plus the master station from which all orders emanate, are on the same frequency. Thus, every driver hears all messages, and can better orient himself to the entire operation.

Master short wave station

A master short wave station is located in central dispatching headquarters, which is both the voice and



Central dispatch headquarters contains, besides the man who keeps things going, a master short wave station with all trucks linked to it on the same frequency; a plant layout chart in the background; and stock record location cards, which dispatcher is shown studying. The only identification required for each truck is the driver's name.

brain of the materials handling system. Included are a space layout chart and stock record location cards. The dispatcher knows where all merchandise is, can keep up to the minute on the positions of his fleet, and is able to shift trucks and goods with exceptional speed.

Deadhead loads, idle time, waiting for load—are eliminated

Deadhead loads, idle time, waiting for a pallet load, and general confusion are eliminated. Another saving is in paper-work. In the past, assignments were worked out in advance, put on paper, and handed to the driver who proceeded on his own from that point. With verbal orders, given one at a time, the paper-work is not needed.

A typical operation

A typical operation might start with a driver picking up a pallet load

at the receiving dock. He calls the dispatcher to learn where to take it, and is told the exact spot. In a matter of seconds, he is enroute.

When finished, he calls for his next assignment, or possibly he has heard from "central" already. Again, no waste. He's off to the next job, the nearest one that needs to be done. Before the radio system was installed, drivers often traveled as far as 600 feet without a load to get their orders.

Driver knows exact destination

The same technique applies throughout. Whether an operator be headed for the reserve storage area, the order picking floor, or the incoming or outgoing docks, there's no problem. He'll go to the correct shipping door, for instance the one where his load is waiting, and he won't be delayed while several other trucks pick up their pallet loads and move on.

For Johnson & Johnson, the radio equipment and its installation cost \$3200. The operation is too new for time-study figures to tell how rapidly savings achieved by the radio-electric truck combination are paying for the communications system. However, the company asserts that dollar benefits are appreciable, and already indicate a considerable accomplishment.

System can work in small plant

That the system can be profitable for plants smaller than J & J's 207,000 square feet seems certain. Space and distance are not the only determining factors; more important is the amount of time that can be saved. Observers, who consider Johnson & Johnson a company with a remarkable record of industrial leadership, already feel that radio-controlled materials handling has a money-making future throughout all branches of industry.

A pallet load of crated merchandise for export is taken from the stock, and while backing his truck into the aisle, operator calls dispatcher to learn exactly which shipping door will handle him on arrival. Precision movements from start to finish wipe out delays and inefficiencies wherever they might occur.



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able at Temple University's Community College:

Carloading and Bracing—Monday evening, March 12, or Thursday evening, March 15.

Ship Stowage and Air Cargo—Monday evening, March 19, or Thursday evening, March 22.

Administrative Aspects of packaging and materials handling—Monday, March 26, or Thursday, March 29.

NST CERTIFICATION FOR SERVEL, KUEHNE MFG., & ODIN STOVE

The latest companies to be certified by the National Safe Transit Committee are: *Servel, Inc.*, of Evansville, Indiana, *Kuehne Manufacturing Co.*, of Mattoon, Illinois, and *Odin Stove Manufacturing Co.*, of Erie,

Pennsylvania. This brings to 64 the total number of manufacturers of home appliances and allied metal products now cooperating in the National Safe Transit Program.

GENERAL BOX TO BUILD NEW OFFICES AND LABORATORY

General Box Company has announced plans for the construction of a new building to house their executive offices and experimental laboratory. It will be built on a 4-acre tract of land near the intersection of Busse and Miner (Dempster) Streets, in Des Plaines, Illinois.

The building will be a one story L-shaped brick and stone trim structure, housing a total of 22,300 square feet; 13,000 square feet will be devoted to offices, the balance to laboratory. The office and part of the laboratory will be acoustically treated against noises and all offices will be air conditioned. The use of this building will be limited to offices and laboratory work since the company's products (wirebound and corrugated shipping containers) are manufactured in 11 plants located throughout the country. Ample employee parking space and recreation facilities are included in the construction plans, the report states.

The company's current address is 500 N. Dearborn St., Chicago, Ill.

SIGNODE NAMES JONES HEAD OF NEW BALTIMORE DISTRICT

M. C. Carlson, general sales manager, Signode Steel Strapping Company, Chicago, has announced the appointment of Merritt W. Jones to the post of manager of the firm's newly created Baltimore sales district which comprises the state of Vir-

ginia, and parts of Maryland, West Virginia and North Carolina. Jones joined Signode in January, 1946, serving as sales engineer in the Philadelphia and Virginia territories. He is a member of Signode's sales advisory board.

BUCUSS ELECTED PRESIDENT OF MATERIALS HANDLING INST.

At the annual meeting of the Materials Handling Institute, held recent-



ly in New York City, John G. Bucuss, general manager of Acme Steel's strapping division, was elected to serve as president during 1951.

A member of the Institute since 1946, Bucuss served successive terms as director, second vice president and first vice president for the past three years. He is also a member of the Loading Research Division of the National Safe Transit Committee.

DESIGNATE WEEK OF APRIL 16 AS "PACKAGING WEEK"

The American Management Association has announced that the week of April 16 has been designated as "Packaging Week." Events scheduled for that week include the 20th National Packaging Exposition, and the AMA Packaging Conference, both to be held at the Auditorium in Atlantic City. Machines, equipment and services used in packaging, packing and shipping will be on display during the week.

AMA has presented the National Packaging Exposition annually, with the exception of one war year, since 1931. In the first show some 34 exhibitors, occupying approximately 3000 square feet of floor space, showed products and services to fewer than 2000 visitors. At the 19th Exposition, held last year at Chicago's Navy Pier, 240 exhibitors covered almost 75,000 square feet of exhibit space, and attendance exceeded 19,000.

Arrangements for the 1951 Exposition are under the direction of Clapp & Poliak, of New York City.

Robert D. Handley, advertising manager, Sylvania Division, American Viscose Corp., is chairman of the Exhibitors' Advisory Committee.

Among the members of the Exhibitors' Advisory Committee are:

N. A. Fowler, director of sales and research, General Box Company; Paul Meelfeld, assistant vice president, The Hinde & Dauch Paper Company; Ben M. Williams, manager, sales promotion, Gaylord Container Corporation; Tom Miller, vice president in charge of sales, Package Machinery Corporation; William E. Haberland, sales manager, Container Equipment Corporation; and M. Gaukerud, sales research department, Container Corporation of America.

PACKAGING INSTITUTE FORUM IN NEW YORK, OCTOBER 22-24

The board of directors of the Packaging Institute has announced that their annual packaging forum will be held this year at Hotel Commodore in New York City, October 22, 23 and 24.

The WATKINS CONTAINER

Stronger . .

Lighter . .

Labor Saving . .

1. Stronger—The Watkins Container is more rigid. It has greater resistance to "weaving." Corner cleats resist corner blows. Vertical cleats give greater column strength. It supports greater loads in the warehouse.

2. Lighter—Weight saving up to several pounds can be made in practically every case. Lighter to handle. Lighter to ship.

3. Labor Saving—Watkins Containers are 75% assembled. Only three pieces to handle. Ideal for conveyor packing and high production.

There is advertising value in every container—a traveling billboard. Can be printed in two colors on four sides. And, there is product protection—no dust or dirt can mar fine product finishes.

Watkins containers save time in the shipping department; give better protection in transit. Major appliances and any other similar products that can be shipped in a wooden crate can be shipped better in this container. Weights up to 800 pounds are being shipped.

These companies build WATKINS containers

Cornell Wood Products Co.,
Hummel & Downing Division

1514 E. Thomas Ave., Milwaukee, Wisconsin
446 E. 131st St., Cleveland, Ohio

Cazier Container Corp.

Crate-Rite Mfg. Corp.,
Div. of Pacific Ports Ind. Inc.

10901 Russet St., Oakland, California

Dura-Crates Co.

940 E. Michigan St., Indianapolis, Indiana

General Box Co.

500 N. Dearborn St., Chicago, Illinois, and
16th and Maple Sts., Louisville, Kentucky

Hemb & Martin Mfg. Co.

115 Cherry St., Watseka, Illinois

Illinois Box & Crate Co.

811 Center St., Plainfield, Illinois

Kieckhefer Box & Lumber Co.

714 E. Canal St., Milwaukee, Wisconsin

Lane Container Corp.

10212 Denton Rd., Dallas, Texas

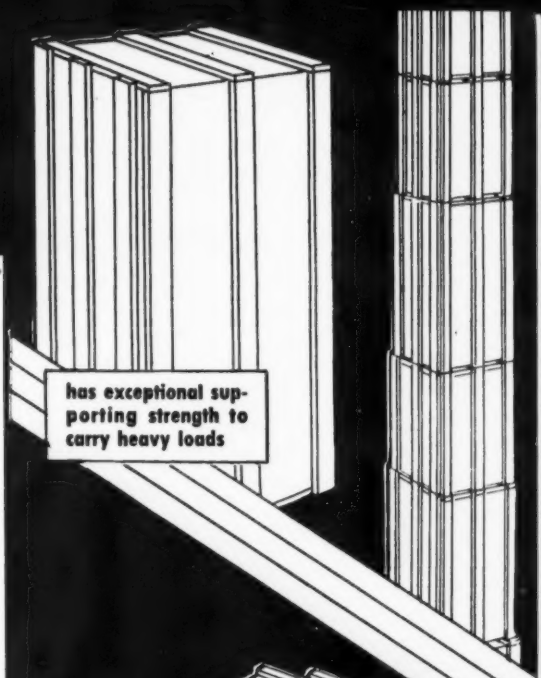
Lewisburg Container Co.

243 Singer St., Lewisburg, Ohio

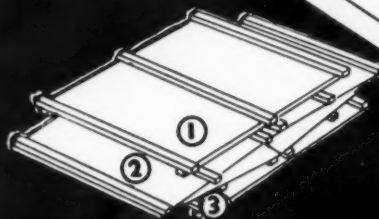
Love Mfg. Inc.

608 S. Commerce St., Wichita, Kansas

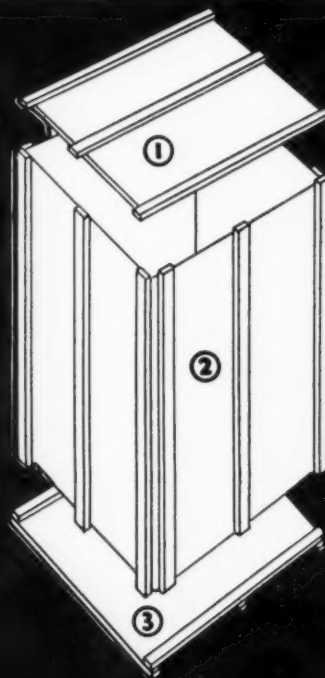
—an inquiry to any of these companies will get prompt attention—



has exceptional supporting strength to carry heavy loads



saves storage space
75% assembled



The · WATKINS CONTAINER · Manufacturers

Companies cooperating in Safe Transit program

THE following companies are certified under the National Safe Transit Program. They are privileged to use the N.S.T. Label.

Admiral Corporation
Chicago, Illinois
American Central Division
Avco Mfg. Corp.
Connersville, Indiana
American Stove Company
Cleveland, Ohio
American Stove Company
St. Louis, Missouri
Andes Range & Furnace Corporation
Geneva, New York
Apex Electrical Manufacturing Co.
Cleveland, Ohio
Appliance Manufacturing Company
Alliance, Ohio
Automatic Washer Company
Newton, Iowa
The Bellaire Enamel Company
Bellaire, Ohio
Belmont Stamping & Enameling Co.
New Philadelphia, Ohio
Bendix Home Appliances
Division—Avco Mfg. Corp.
South Bend, Indiana
Caloric Stove Corporation
Topton, Pennsylvania
Canton Stamping & Enameling Co.
Canton, Ohio
Central Rubber & Steel Corporation
Findlay, Ohio
Chambers Corporation
Shelbyville, Indiana
Chicago Vitreous Enamel Prod. Co.
Cicero, Illinois
Conlon Bros. Mfg. Co.
Chicago, Illinois
Conlon-Moore Corporation
Chicago, Illinois
Cribben and Sexton Company
Chicago, Illinois
Crosley Division, Avco Mfg. Corp.
Richmond, Indiana
Crosley Division, Avco Mfg. Corp.
Nashville, Tennessee
Crunden Martin Manufacturing Co.
St. Louis, Missouri
The Dexter Company
Fairfield, Iowa
Dixie Foundry Company, Inc.
Cleveland, Tennessee

Federal Enameling & Stamping Co.
Pittsburgh, Pennsylvania
The Fletcher Enamel Company
Dunbar, West Virginia
The Floyd-Wells Company
Royersford, Pennsylvania
General Electric Company
Erie, Pennsylvania
Globe American Corporation
Kokomo, Indiana
Hardwick Stove Company
Cleveland, Tennessee
Hotpoint, Inc.
Chicago, Illinois
International Harvester Company
Evansville, Indiana
Kaiser Metal Products, Inc.
Bristol, Pennsylvania
Kuehne Manufacturing Co.
Mattoon, Illinois
Landers, Frary & Clark
New Britain, Connecticut
A. J. Lindemann & Hoverson Co.
Milwaukee, Wisconsin
Lisk-Savory Corporation
Buffalo, New York
Malleable Iron Range Company
Beaver Dam, Wisconsin
The Maytag Company
Newton, Iowa
Meadows Division, Thor Corporation
Bloomington, Illinois
Midwest Manufacturing Company
Division of Admiral Corp.
Galesburg, Illinois
Moffats, Limited
Weston, Ontario, Canada
The Moore Enameling & Mfg. Co.
West Lafayette, Ohio
Murray Corporation of America
Scranton, Pennsylvania
Murray Manufacturing Company
Murray, Kentucky
Nash-Kelvinator Corporation
Grand Rapids, Michigan
Nesco, Inc.
Milwaukee, Wisconsin
Norge Division, Borg-Warner Corp.
Effingham, Illinois
Norge Division, Borg-Warner Corp.
Herrin, Illinois
Norge Division, Borg-Warner Corp.
Muskegon Heights, Michigan

Odin Stove Manufacturing Co.
Erie, Pennsylvania
Perfection Stove Company
Cleveland, Ohio
Philco Corp., Refrigerator Division
Philadelphia, Pennsylvania
Republic Stamping & Enameling Co.
Canton, Ohio
Geo. D. Roper Corporation
Rockford, Illinois
Seeger Refrigerator Co.
Evansville, Indiana
Serval, Inc.
Evansville, Indiana
A. O. Smith Corporation
Kankakee, Illinois
Speed Queen Corp., Ironer Division
Algonquin, Illinois
The Tappan Stove Company
Mansfield, Ohio
Thor Corporation
Chicago, Illinois
United States Stamping Company
Moundsville, West Virginia
Westinghouse Electric Corporation
East Springfield, Mass.
Westinghouse Electric Corporation
Mansfield, Ohio

Certified Safe Transit Laboratories

Atlas Plywood Corporation
Lawrence, Massachusetts
Chicago Mill and Lumber Company
Chicago, Illinois
Container Laboratories, Inc. (2)
Chicago and New York City
Cozier Container Corporation
Cleveland, Ohio
The Fairfield Paper & Container Co.
Baltimore, Ohio (project 1-a only)
General Box Company
Chicago, Illinois
The Hinde & Dauch Paper Company
Sandusky, Ohio
Inland Container Corporation
Indianapolis, Indiana
International Paper Company
Georgetown, South Carolina
Ohio Boxboard Company
Rittman, Ohio
Package Research Laboratory
Rockaway, New Jersey
Packaging Service Corporation
Wyncote, Pennsylvania
Don L. Quinn Company
Chicago, Illinois
U. S. Testing Company, Inc.
Hoboken, New Jersey

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360 N. Michigan Ave., Chicago 1, Ill.

WASHINGTON BRIEFS

● D.O. PRIORITY RATING can be used by defense contractors to get jigs, dies, and tools needed for defense production. While not applicable to complete machine-tools, it should help speed defense work. A special priority is expected soon to help machine-tool industry get needed materials and parts.

● U.S. GOVERNMENT is scheduled to become sole purchaser of all critical materials abroad. This will follow the action already taken on crude rubber.

● NEW STEEL MILLS are planned for the East. In addition to U.S. Steel's planned mill near Trenton, New Jersey, the New England Council's proposed plant in Connecticut is a distinct possibility. Now National Steel has also announced plans for a one million ton capacity plant south of Camden, New Jersey.

● DELUXE MODELS AND FANCY TRIMMINGS will be curtailed greatly as the strategic materials shortage gets tighter and bans on materials uses take effect. Adjustments are already being made in the appliance and automotive field.

● PROFITTEERING AND BLACK MARKET PRACTICES are the target of recently issued orders prohibiting the hoarding of critical materials. The orders forbid accumulation of 100 strategic materials "in excess of reasonable consumption requirements . . . or for resale at prices in excess of market."

● SEEKING WAR CONTRACTS?—get a copy of "Selling to your Government" prepared by Senate's Small Business Committee by writing to your Congressman or from the Committee. It contains much helpful information.

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"I saw your ad in finish"

DETROIT-MICHIGAN RANGES RECEIVE TWO DESIGN AWARDS



Detroit-Michigan Stove Company's 1951 Detroit Jewel and Garland gas ranges recently received two top design awards. One was the "first Gold

Medal ever bestowed upon a cooking appliance" by the Fashion Academy of New York. The other was the Merit Award of the American Society

of Industrial Engineers which the company received for the second successive year.

In the photo, John A. Fry (left), D-M president, is shown accepting the Gold Medal from Emil Hartman, Academy director, while Fred A. Kaiser, D-M vice president, looks on. In the other presentation, Mr. Fry accepted the Merit Award from Robert L. Crinnion, national president of ASIE.

PMI 1951 TECHNICAL SESSION

The Pressed Metal Institute has announced that its 1951 Technical Session will be held in Cleveland, Ohio, March 29 and 30. Program details will be announced later.

MIDWEST ENAMELERS 25TH ANNIVERSARY MEETING

The Midwest Enamelers Club will hold its 25th anniversary meeting in Chicago, March 10, according to an announcement by F. A. Petersen, Club president.

HOTPOINT DRYER USES "MOISTURE CONDENSING" PRINCIPLE



Just introduced for shipment to dealers, this new automatic electric tumbler dryer produced by Hotpoint,

Inc. has a "revolutionary principle of condensing moisture from heated air by means of cold water spray." Use

of spray filtering is said to wash out lint, which together with condensed moisture from clothes, is then pumped through rubber hose to nearest sink or drain outlet.

Hotpoint sales officials assert that the new model will open up the market for dryers which "have not sold well in past because housewives have objected to moisture in the laundry room."

A continuing market analysis and consumer survey conducted during 1950 by Hotpoint shows that 15 manufacturers are now competing for the clothes dryer business, compared with only three in 1941. Manufacturers shipped more than 300,000 units in 1950, the poll revealed. The survey was made preparatory to the company's bringing out of its new "moisture-free" dryer introduced at the recent Winter Homefurnishings Market in Chicago. Edward R. Taylor, general sales manager, interpreted the survey to indicate that rapidly growing dryer acceptance will bring the same attention to planned home laundries as that won by complete kitchens in the last five years.